Installation Instructions | Installationsanleitung | Notice d'installation | Instrucciones de instalación | Istruzioni per l'installazione

Sartorius Combics: Option Y2

Models CAIS... | CAW.S... | CAAP...
Combics Equipment for Use in Zone 2 and 22 Hazardous Areas

Modelle CAIS... | CAW.S... | CAAP...
Combics-Geräte für den Einsatz in explosionsgefährdeten Bereichen der Zonen 2 und 22

Modèles CAIS... | CAW.S... | CAAP...
Appareils Combics pour l'utilisation dans les domaines à risques d'explosions des zones 2 et 22

Modelli CAIS... | CAW.S... | CAAP...
Strumenti Combics per l'impiego nelle aree a rischio di esplosione, Zona 2 e 22

Modelos CAIS... | CAW.S... | CAAP...
Aparatos Combics para el empleo en atmósferas potencialmente explosivas, zonas 2 y 22

98647-004-70

Contents

English – page 2
In cases involving questions of interpretation, the German-language version shall prevail.

Deutsch – Seite 10
Im Auslegungsfall ist die deutsche Sprache maßgeblich.

Français – page 18
En cas de questions concernant l'interprétation, la version en langue allemande fera autorité.

Italiano – pagina 26
In caso di interpretazione, fa testo la versione in lingua tedesca.

Español – página 34
En caso de interpretación, la versión en lengua alemana es determinante.

Intended Use 3

Warning a nd Safety Information 3

Getting Started. 4

Safety Instructions 6

EC Declaration of Conformity 42

Manufacturer's Certificate. 44

Intended Use

Combics explosion-protected instruments equipped with Option Y2 meet the requirements for Category 3 equipment in accordance with Council Directive 94/9/EC and are rated for use in Zone 2 and 22 hazardous areas.

Please refer to the Annex to the Statement of Conformity for the equipment designation.

The permissible temperature range during operation is –20°C to +40°C (–4°F to +104°F).

The additional equipment required was installed by Sartorius during the production process.

Warning and Safety Information

The weighing instrument meets the EC Directives and standards governing:
– electrical apparatus
– explosion protection
– electromagnetic compatibility
– electrical safety
Improper use or handling, however, can result in damage and/or injury.

- Do not expose the equipment to aggressive chemical vapors or to extreme temperatures, moisture, shocks, or vibration. The equipment is rated for use in Zone 2 and 22 hazardous areas. Please make sure the currently valid regulations and guidelines for installing equipment in the areas listed above are strictly observed.
- When using the equipment in hazardous areas, make sure there is no current or voltage in the equipment before connecting or disconnecting current-carrying cables to or from the device. Disconnect the scale from AC power before connecting or disconnecting cables.
- Refer to the enclosed "Installation Instructions" before installing the equipment: Drawing 65954-751-16-A4
- Installation in a Zone 2 or 22 hazardous area must be performed by a trained technician. The power connection must be made in accordance with the regulations applicable in your country. If you need assistance, contact your Sartorius dealer or the Sartorius Service Center. Any installation work that does not conform to the instructions in this manual will result in forfeiture of all claims under the manufacturer's warranty.
- Make sure all metal parts are grounded to prevent buildup of static electricity.
- Have the equipment inspected at appropriate intervals for correct functioning and safety by a trained technician.

- If you see any indication that the equipment cannot be operated safely (for example, due to damage), disconnect the device from power and lock the equipment in a secure place so that it cannot be used for the time being. Make sure the applicable accident prevention regulations are observed by all operating personnel.
- Always make sure the equipment is disconnected from AC power before performing any installation, cleaning, maintenance or repair work.

- Handle the equipment with care in accordance with its IP protection rating. Make sure the IP protection is not damaged when cleaning the equipment.
- If you use cables purchased from another manufacturer, check the pin assignments in the cable against those specified by Sartorius before connecting the cable to Sartorius equipment, and disconnect any wires that are assigned differently. The operator shall be solely responsible for any damage or injuries that occur when using cables not supplied by Sartorius.

Conditions for Installation:
Before putting the equipment into operation, it is important to make sure that the power cord is correctly connected to the power outlet (mains supply). All equipment must be connected to the equipotential bonding conductor by connecting the grounding cable (not included in delivery) to the grounding terminals or bore holes provided for this purpose on each device. The dimensions of the grounding cable are specified in national regulations for electrical installations. Installation must be performed by a trained technician in accordance with national regulations and acknowledged technological standards.

Use only cabling and extensions approved by Sartorius, as these are made in accordance with the restrictions on permissible cable lengths imposed by both the capacitance and inductivity values and the requirements for electromagnetic compatibility.

Before putting the weighing system into operation for the first time, make sure there is no hazard of explosion present at the place of installation. If there is any indication that the equipment does not function properly (e.g., display remains blank) due to damage during transport, disconnect the equipment from power and notify your nearest Sartorius Service Center.

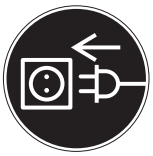
Before connecting or disconnecting data cables or control lines to or from the device, make sure all equipment is disconnected from power. If the equipment housing is opened by anyone other than persons authorized by Sartorius, this will negate its conformity with regulations governing use in the stated Zone 2 and 22 hazardous areas and result in forfeiture of all claims under the manufacturer's warranty.

If you use the equipment in a hazardous area outside Germany, you must comply with the national electrical code and applicable safety regulations of your country. Ask your local Sartorius office or dealer for information on the legal regulations applicable in your country.

Getting Started

If necessary, connect the weighing platform (not applicable to Combics CAW.S.. complete scales):

○ See the operating instructions supplied with the particular indicator.

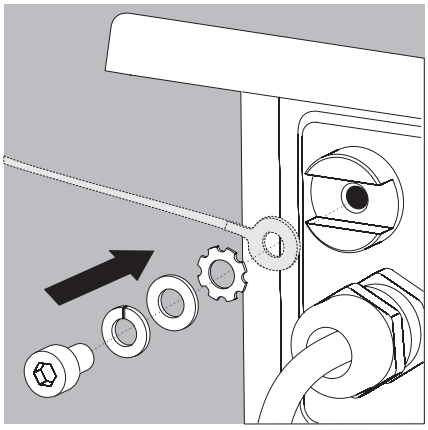


Connect the equipment to AC power:

○ See the operating instructions supplied with the particular Combics indicator.

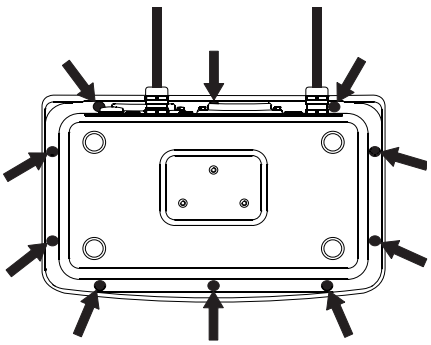
○ Min. torque that must be applied the cable gland when connecting the equipment to AC power: 3 Nm

○ Min. torque for other cable glands: 5 Nm



Connect an equipotential bonding conductor (CAIS indicators and CAW.S.. complete scales) = grounding:

● Connect the device to a central equipotential busbar (not included in delivery) using a grounding conductor.

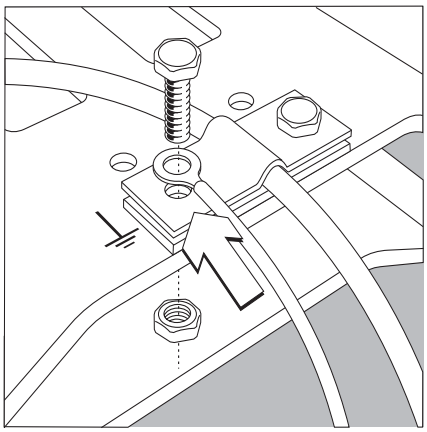


● **If necessary, seal the Combics indicator to protect it from vapors as follows:**
– Use a torque wrench
– Apply 1 Nm torque to each of the 10 screws

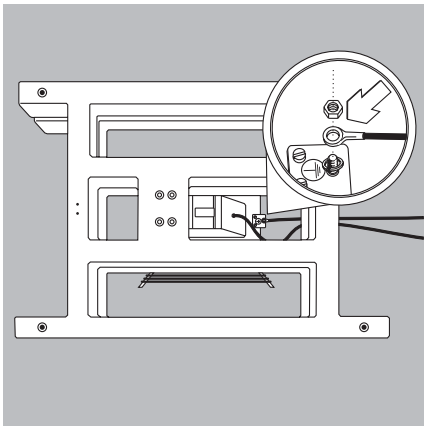
● Make sure the integrity of the IP67/IP69K protection is not damaged or impaired while performing installation work. For more information about industrial protection, contact the Sartorius Service Center.

CAAPS... and CAAPP... weighing platforms must be grounded using an equipotential bonding conductor (grounding):

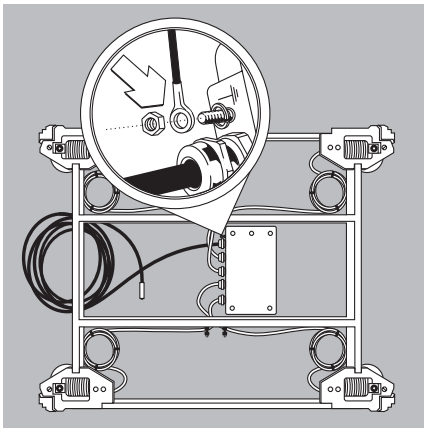
- Make sure all metal parts are grounded to prevent buildup of static electricity. Connect the device to a central equipotential busbar (not included in delivery) using a grounding conductor.
- Tighten screws and nuts securely.



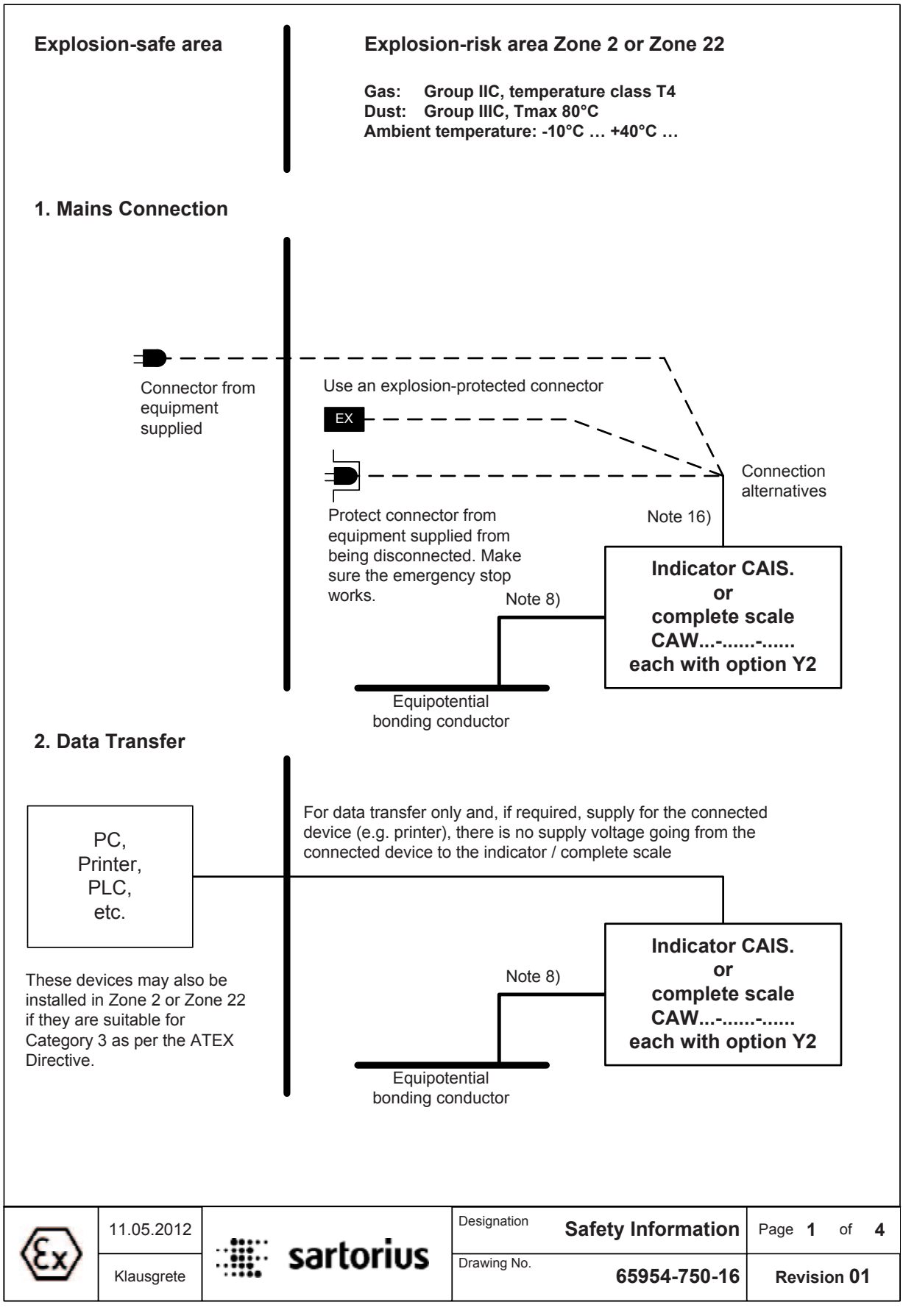
CAAPS1.. and CAAPP1.. weighing platforms, dimensions: up to 500 × 400 mm



CAAPS1.. and CAAPP1.. weighing platforms, dimensions: ≥ 650 × 500 mm



CAAPS4.. and CAAPP4.. weighing platforms


Explosion-safe area
Explosion-risk area Zone 2 or Zone 22
Gas: Group IIC, temperature class T4
Dust: Group IIIC, Tmax 80°C
Ambient temperature: -10°C … +40°C …
1. Mains Connection
Connector from equipment supplied
Use an explosion-protected connector
EX
Protect connector from equipment supplied from being disconnected. Make sure the emergency stop works.
Connection alternatives
Note 16)
Note 8)
Indicator CAIS. or complete scale CAW...-.....-..... each with option Y2
Equipotential bonding conductor
2. Data Transfer
PC, Printer, PLC, etc.
For data transfer only and, if required, supply for the connected device (e.g. printer), there is no supply voltage going from the connected device to the indicator / complete scale
These devices may also be installed in Zone 2 or Zone 22 if they are suitable for Category 3 as per the ATEX Directive.
Note 8)
Indicator CAIS. or complete scale CAW...-.....-..... each with option Y2
Equipotential bonding conductor

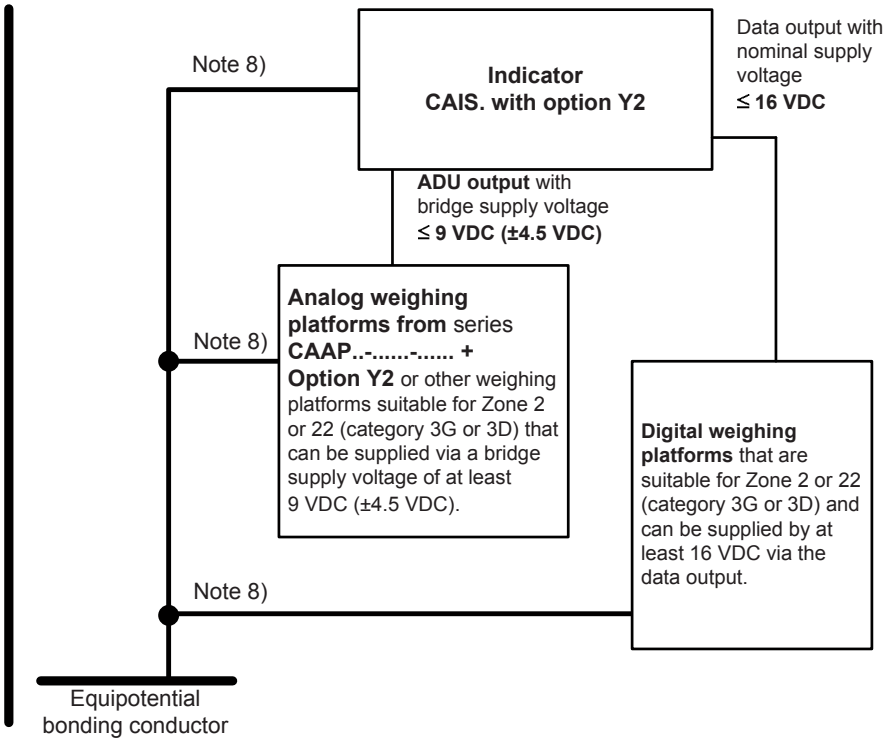
	11.05.2012	sartorius	Designation **Safety Information**	Page **1** of **4**
	Klausgrete		Drawing No. **65954-750-16**	**Revision 01**

Explosion-safe area

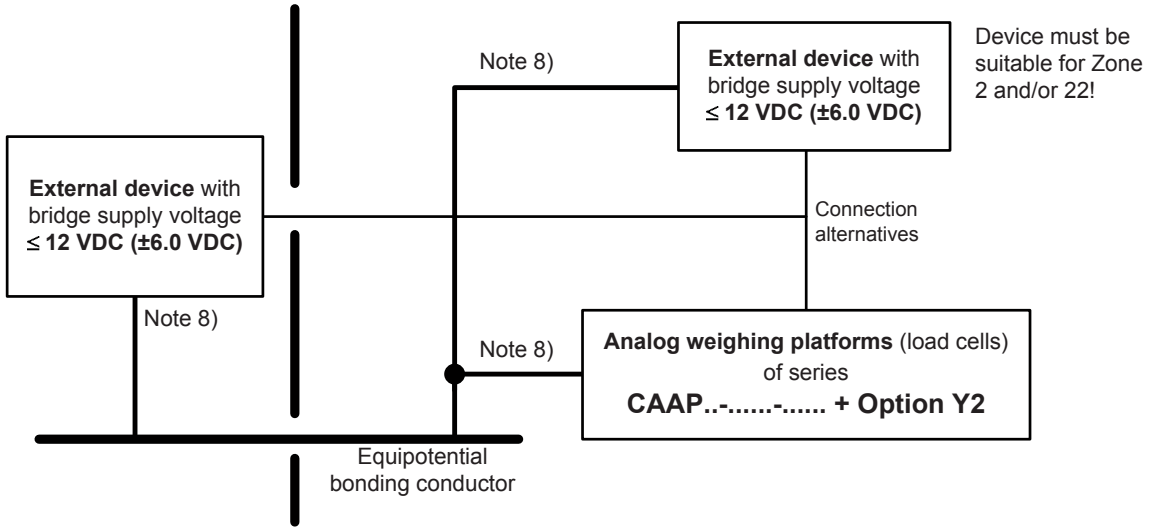
Explosion-risk area Zone 2 or Zone 22

Gas: Group IIC, temperature class T4
Dust: Group IIIC, Tmax 80°C
Ambient temperature: -10°C … +40°C

3. Connecting Weighing Platforms


Note 8)
Indicator
CAIS. with option Y2
Data output with nominal supply voltage
≤ 16 VDC
ADU output with bridge supply voltage
≤ 9 VDC (±4.5 VDC)
Note 8)
Analog weighing platforms from series CAAP..-.....-..... + Option Y2 or other weighing platforms suitable for Zone 2 or 22 (category 3G or 3D) that can be supplied via a bridge supply voltage of at least 9 VDC (±4.5 VDC).
Digital weighing platforms that are suitable for Zone 2 or 22 (category 3G or 3D) and can be supplied by at least 16 VDC via the data output.
Note 8)
Equipotential bonding conductor

4. Connecting External Devices


Note 8)
External device with bridge supply voltage
≤ 12 VDC (±6.0 VDC)
Device must be suitable for Zone 2 and/or 22!
External device with bridge supply voltage
≤ 12 VDC (±6.0 VDC)
Connection alternatives
Note 8)
Note 8)
Analog weighing platforms (load cells) of series
CAAP..-.....-..... + Option Y2
Equipotential bonding conductor

	11.05.2012	sartorius	Designation **Safety Information**	Page **2** of **4**
	Klausgrete		Drawing No. **65954-750-16**	**Revision 01**

These safety instructions apply to installation, use, maintenance and repair

1. The device (CAIS. indicator, CAAP weighing platform..-……-……, CAW complete scale…-……-…...) is suitable for use in potentially explosive atmospheres of **Zone 2** (Group IIC, temperature class T4 or T6 for weighing platforms) and **Zone 22** (Group IIIC; surface temperature 80°C) according to EU Directive 94/9/EC and applicable harmonized European standards. This does not guarantee compliance with other properties and requirements.
2. The device may only be used indoors.
3. Do not use it as a portable instrument.
4. Installation, operation, maintenance and repairs should only be performed by an authorized specialist, in accordance with applicable laws, rules and regulations, ordinances and standards. Particular attention should be paid to Standard EN 60079-14 within the scope of validity of EU Directive 94/9/EC for the installation. Installation, maintenance, cleaning and repair work may only take place with all power disconnected from the device and any connected peripheral devices.
5. It is essential that recommendations on the installation, operation, maintenance and repair contained in the operating instructions supplied are complied with for all equipment (including connected devices). The temperature ranges of connected devices must also be taken into account.
6. The device should only be used in a temperature range of **-10°C … +40°C,** do not expose it to unacceptable sources of heat or cold, direct sunlight, UV radiation, shocks or vibrations, and the installation should ensure that heat can be properly dissipated and external heat sources are kept at a sufficient distance.
7. Tighten the cable entry glands using a torque of 5 Nm. The cable gland for the power cord should be tightened with a torque of only 3 Nm. Install the external connecting cables firmly to avoid damage and strain. The cable connections inside the explosion-risk area must be secured against loosening.
8. All metal parts must be electrically connected to the same equipotential bonding conductor (PA) so that any electrostatic charges can be conducted away from the equipment. For this purpose, the equipment operator is obligated to connect a lead with a gauge of at least 4 mm² (cross section) to the equipotential bonding terminal (indicated by the ground symbol) located on the housing. A suitable ring terminal must be attached to the end of the cable. The cable must be laid so that the ground connector cannot come loose. The connection to the equipotential bonding conductor should be checked to see if it is of low resistance at the time of installation and at regular intervals. The indicator and weighing platform must each be connected individually to the equipotential bonding conductor if no metal connection (e.g. support arm) is used between them. Do not use the shield of the connection cable for the equipotential bonding conductor.
9. Before opening devices, switch off the supply voltage, or make sure that the area is not potentially explosive. Do not connect or disconnect any live cables inside an explosion-risk area.
10. When closing, make sure the cover screws are tightly secured.
11. The device should only be operated for the first time when it is certain that the area is not potentially explosive.
12. Data lines to connected devices and the connection cable to the weighing platform should be secured against accidental disconnection and may only be connected and disconnected when the power supply is turned off. Block unused outlets to guarantee the IP 65 level of protection. Keep any transitory voltage phenomenon away from the device.
13. Data cables are for data transfer only and may not supply any power from the connected device to the indicator / complete scale. However, one digital weighing platform suitable for use in Zone 2 or 22 connected to the data output can be supplied via direct voltage if it can be supplied by direct voltage of at least 16 VDC via the data output.

14. During installation, take suitable steps to prevent stray electrical interference (e.g. due to magnetic fields). Keep any voltage transients away from the device.
15. The indicator (indicator of the complete scale) should be installed so that there is only a low risk of mechanical danger to the IP protection. The IP protection rating of the device is IP6x according to EN 60529 / IEC 60529. The device is designed for clean environments and must be handled carefully according to the IP protection rating.
16. The power connection must be made in accordance with the regulations applicable in the country of operation. A correct power connection must be ensured. The power supply cable should be protected against damage and properly connected to the power supply (**100 - 240 VAC, ± 10%**, 50-60Hz) or **24 VDC (± 10%)** for Option L8**.** The indicator and/or complete scale is approved for circuits up to 1500 A. Only use the power supply connection cable in the hazardous area with a suitable and approved explosion-protected plug. Alternatively: Protect connector from being disconnected or attach the power supply connection cable directly. Be sure to provide a suitable emergency shut-off switch.
17. Avoid generating static electricity. Only use a damp cloth to clean the device. This is especially true when using a dust cover. The equipment operator assumes responsibility for preventing any risks caused by electrostatic charging.
18. If cables are connected subsequently, make sure that the connections are not corroded. The grounding conductor of a mains connection cable must have the same cross section as the current-carrying wires (N and L).
19. All external cables (even cables between load cells / weigh cells and connection box / junction box) are only suitable for fixed placement and must be laid fixed. Otherwise, use screwed connections designed according to EN60079-0 and rounded at an angle of 75º (minimum) and a radius at least equal to one-quarter of the diameter of the cables, but without exceeding 3 mm.
20. Cables from third-party manufacturers (subject to the user's responsibility) must be tested for suitability according to Appendix A EN 60079-0. Pay attention to the pin assignment. Pay attention to the wiring diagram. Remove unneeded connections.
21. Unused openings must be sealed using suitable cover caps (dummy plugs) to ensure their IP protection rating. Do not remove while it is carrying current.
22. When using external devices in Zone 2 hazardous areas, pay attention to the gas group and temperature class. The outputs must include the Ex nA electrical circuits. Pay attention to the maximum surface temperature and group for Zone 22.
23. Chemicals that can attack housing gaskets and cable sheathings must be kept away from the device. These include oil, grease, benzine, acetone, and ozone. If you are uncertain, contact the manufacturer.
24. The installation must be inspected for correct function and safety by a trained and qualified person at appropriate intervals.
25. If the installation does not operate properly, disconnect it from the supply voltage immediately and secure it against further use.
26. In the event of repair, use only original spare parts supplied by the manufacturer.
27. Any modifications to the instrument (except by persons authorized by Sartorius) cause loss of conformity for use in Zone 2 and Zone 22 explosion-risk areas and invalidate all guarantee claims. Similarly, the device may only be opened by qualified and authorized personnel.
28. Modifications (also those by Sartorius personnel) are subject to written approval.
29. These instructions are given in addition to those in the instruction manuals and do not release the operator from his responsibilities for the installation, operation and inspection of the equipment in compliance with any applicable regulations in the country of use.

Inhalt

Verwendungszweck 11

Warn- und Sicherheitshinweise 11

Inbetriebnahme 12

Sicherheitshinweise. 14

EG-Konformitätserklärung 42

Herstellerbescheinigung 44

Verwendungszweck

Bei den Combics-Geräten mit Optionsschlüssel Y2 handelt es sich gemäß Richtlinie 94/9/EG um Geräte der Kategorie 3, geeignet für den Einsatz in den explosionsgefährdeten Bereichen der Zonen 2 und 22.

Die Kennzeichnung ist der Anlage zur Konformitätsaussage zu entnehmen.

Die zulässige Umgebungstemperatur im Betrieb beträgt –20°C bis +40°C.

Im Fertigungsprozess von Sartorius sind die Geräte mit der notwendigen Zusatzausrüstung bestückt worden.

Warn- und Sicherheitshinweise

Die Waage entspricht den EG-Richtlinien und EG-Normen:
– für elektrische Betriebsmittel
– für den Explosionsschutz
– für die elektromagnetische Verträglichkeit
– für die elektrische Sicherheit
Ein unsachgemäßer Gebrauch kann jedoch zu Schäden an Personen und Sachen führen.

- Das Gerät nicht unnötig extremen Temperaturen, aggressiven chemischen Dämpfen, Feuchtigkeit, Stößen und Vibrationen aussetzen.
- Das Gerät darf in explosionsgefährdeten Bereichen der Zone 2 oder 22 eingesetzt werden. Die derzeit gültigen Normen und Vorschriften für die Installation von Geräten in der Zone 2 oder 22 sind einzuhalten.
- Beim Einsatz des Gerätes im explosionsgefährdeten Bereich dürfen alle Strom führenden Kabel nur im strom-/spannungslosen Zustand vom Gerät gezogen oder aufgesteckt werden. Vor Anschluss oder Trennen von Kabeln die Waage vom Netz trennen.
- Zur Installation die beigefügten »Installationshinweise« beachten: Zeichnung 65954-750-16-A4
- Die Installation des Gerätes in der Zone 2 und 22 ist von einer Fachkraft durchzuführen. Der Netzanschluss muss gemäß den Bestimmungen Ihres Landes erfolgen. Bei Bedarf den Händler oder Sartorius-Kundendienst ansprechen. Bei unsachgemäßer Installation entfällt die Gewährleistung.
- Zur Vermeidung elektrostatischer Aufladung alle Metallteile erden.
- Die Anlage in angemessenen Abständen durch eine dafür entsprechend ausgebildete Fachkraft auf ihre ordnungsgemäße Funktion und Sicherheit überprüfen lassen.

- Erscheint Ihnen ein gefahrloser Betrieb nicht mehr gewährleistet, das Gerät von der Betriebsspannung trennen und gegen weitere Benutzung sichern (z.B. bei einer Beschädigung).
  Unfallverhütungsvorschriften beachten, Bedienpersonal entsprechend einweisen.
- Alle Wartungs-, Reinigungs- und Reparaturarbeiten am Gerät sind grundsätzlich im spannungsfreiem Zustand durchzuführen.

- Die Geräte entsprechend ihrem IP-Schutz behandeln. IP-Schutz bei der Reinigung der Geräte einhalten.
- Bei Verwendung fremdbezogener Kabel auf die Pinbelegungen achten. Die Anschlüsse des Kabels deshalb vor Anschluss an die Sartorius Geräte nach dem entsprechenden Verbindungsplan prüfen und die abweichend belegten Leitungen trennen. Nicht von Sartorius gelieferte Kabel unterliegen der Verantwortung des Betreibers.

Aufstellbedingungen:
Vor der Inbetriebnahme muss sichergestellt sein, dass das Netzkabel ordnungsgemäß am Netz angeschlossen ist. Alle Geräte mit Masseverbindungskabel (nicht im Lieferumfang enthalten) über die an den Geräten vorhandenen Potentialausgleichsklemmen oder Bohrungen an den Potentialausgleich (PA) erden.
Der Kabelquerschnitt richtet sich nach den zutreffenden nationalen Bestimmungen.
Die Installation muss von einer dafür ausgebildeten Fachkraft vorschriftsmäßig und nach den Regeln der Technik durchgeführt werden.

Es dürfen nur von Sartorius freigegebene Kabel und Kabellängen verwendet werden, die die Beschränkungen der Kabellängen aufgrund der Kapazitäts- und Induktivitätswerte und des EMV-Verhaltens berücksichtigen.
Die Anlage erstmalig nur dann in Betrieb nehmen, wenn sichergestellt ist, dass der Bereich nicht explosionsgefährdet ist. Zeigen sich bei dieser Inbetriebnahme durch Transportschäden Abweichungen (z.B. keine Anzeige), so ist die Anlage vom Netz zu trennen und der Service zu informieren.

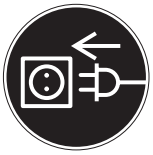
Vor dem Anschluss und Trennen von Datenübertragungs- und Steuerleitungen muss das Gerät unbedingt von der Spannungsversorgung getrennt werden. Jeder Eingriff in das Gerät (außer durch von Sartorius autorisierte Personen) führt zum Verlust der Ex-Konformität für die Zone 2 und 22 sowie aller Garantieansprüche.

Wird das Gerät außerhalb der Bundesrepublik Deutschland im explosionsgefährdeten Bereich der Zone 2 oder 22 verwendet, so sind die entsprechenden nationalen Gesetze/Vorschriften zu beachten. Den Händler oder Sartorius-Kundendienst nach den in Ihrem Land geltenden Richtlinien fragen.

Inbetriebnahme

Ggf. Wägeplattform anschließen (nicht bei Komplettwaagen CAW.S..):

○ Siehe Betriebsanleitung des jeweiligen Auswertegerätes.

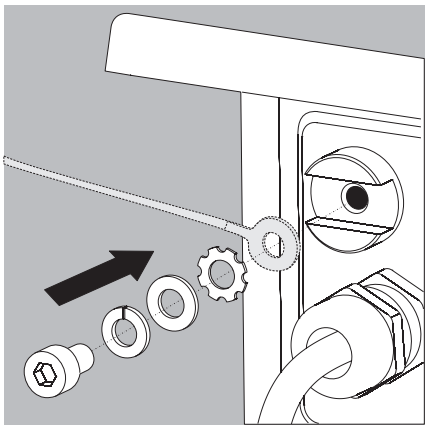


Netzanschluss herstellen:

○ Siehe Betriebsanleitung des jeweiligen Combics-Auswertegerätes.

○ Min. Anzugsdrehmoment der Kabelverschraubung für Netzanschluss: 3 Nm

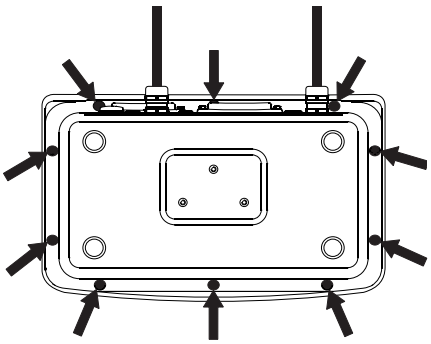
○ Min. Anzugsdrehmoment für andere Kabelverschraubungen: 5 Nm



Potentialausgleichsanschluss bei Auswertegerät CIS und Komplettwaagen CW.S.. herstellen (Erdungsanschluss):

● Gerät mit einem Masseverbindungskabel mit Öse M5 (nicht im Lieferumfang) an eine zentrale Potentialausgleichsschiene anschließen.

● Schraube: M5 × 8

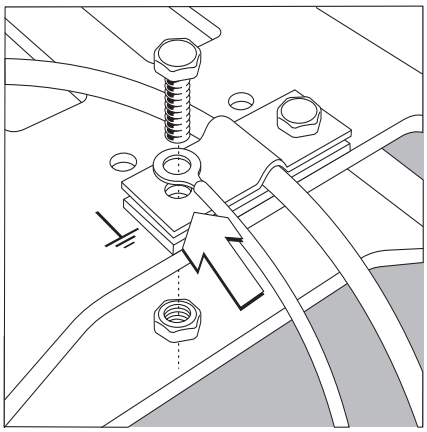


● **Ggf. Combics-Auswertegerät (Indikator) schwadensicher schließen:**
– Drehmomentschlüssel verwenden
– Drehmoment für die 10 Schrauben: 1 Nm

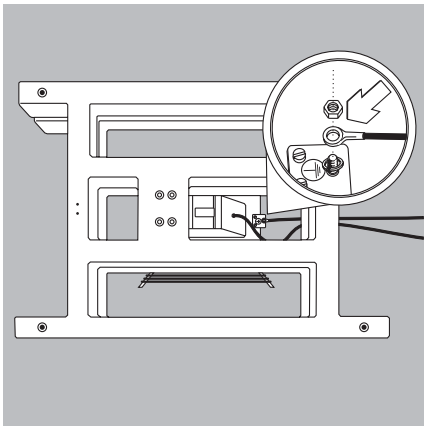
● Die Montage so durchführen, dass der IP67/IP69K-Schutz gewährleistet ist. Weitere Informationen hierzu bitte beim Sartorius Service erfragen.

Potentialausgleichsanschluss bei Wägeplattformen CAAPS... und CAAPP... herstellen (Erdungsanschluss):

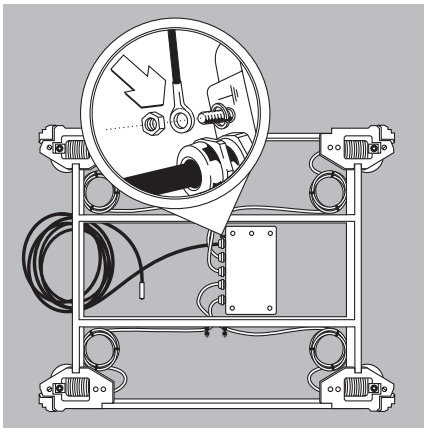
- Zur Vermeidung elektrostatischer Aufladung die Metallteile der Wägeplattform erden. Gerät mit einem Masseverbindungskabel (nicht im Lieferumfang) an zentrale Potentialausgleichsschiene anschließen.
- Schrauben und Muttern fest anziehen.



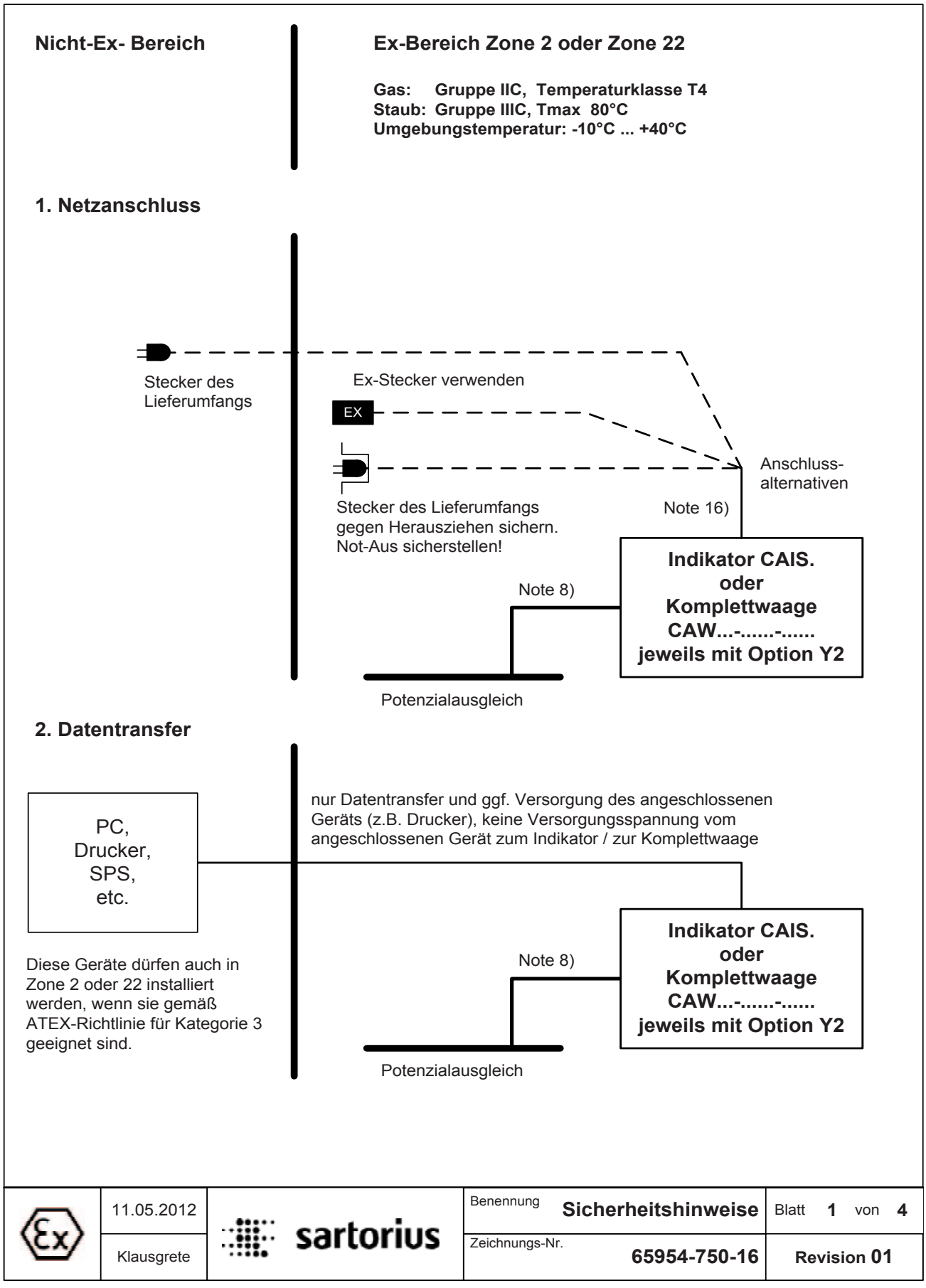
Wägeplattformen CAAPS1.. und CAAPP1.., Abmessung bis 500 × 400 mm



Wägeplattformen CAAPS1.. und CAAPP1.., Abmessung ab 650 × 500 mm



Wägeplattformen CAAPS4.. und CAAPP4..

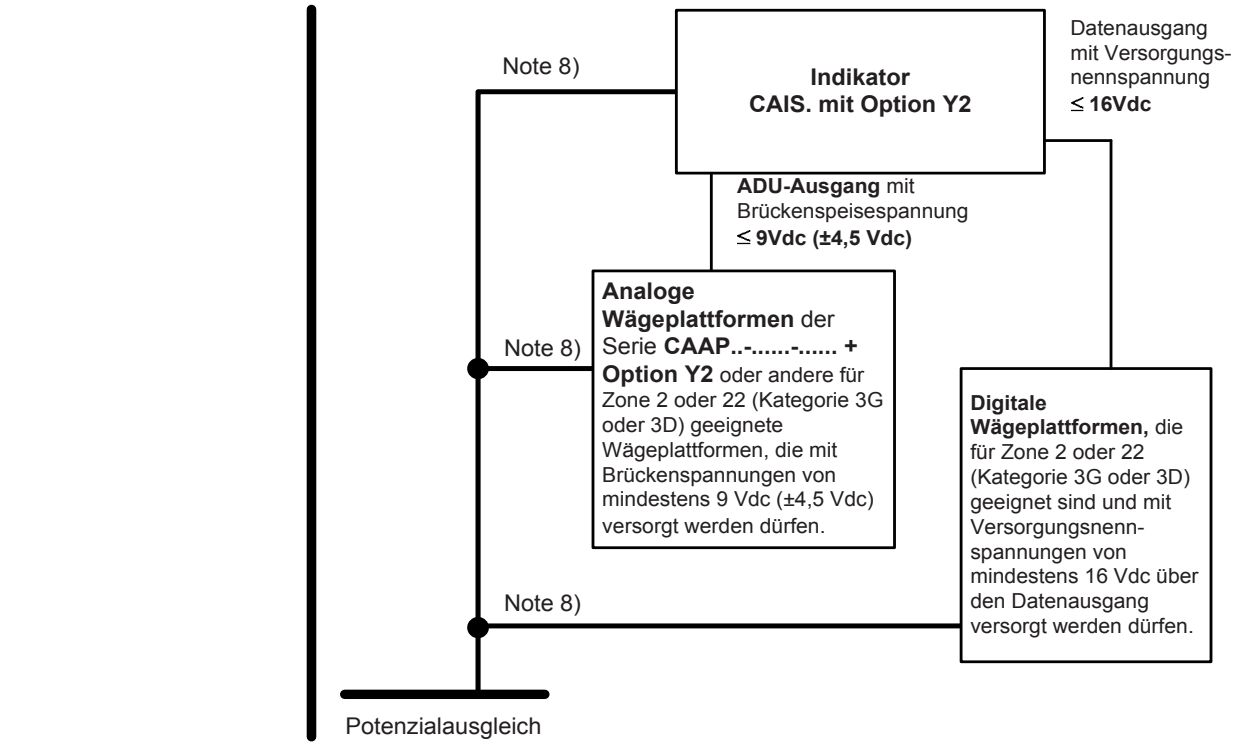

Nicht-Ex- Bereich
Ex-Bereich Zone 2 oder Zone 22
Gas: Gruppe IIC, Temperaturklasse T4
Staub: Gruppe IIIC, Tmax 80°C
Umgebungstemperatur: -10°C ... +40°C
1. Netzanschluss
Stecker des Lieferumfangs
Ex-Stecker verwenden
EX
Stecker des Lieferumfangs gegen Herausziehen sichern. Not-Aus sicherstellen!
Anschluss-alternativen
Note 16)
Indikator CAIS. oder Komplettwaage CAW...-.....-..... jeweils mit Option Y2
Note 8)
Potenzialausgleich
2. Datentransfer
PC, Drucker, SPS, etc.
nur Datentransfer und ggf. Versorgung des angeschlossenen Geräts (z.B. Drucker), keine Versorgungsspannung vom angeschlossenen Gerät zum Indikator / zur Komplettwaage
Diese Geräte dürfen auch in Zone 2 oder 22 installiert werden, wenn sie gemäß ATEX-Richtlinie für Kategorie 3 geeignet sind.
Indikator CAIS. oder Komplettwaage CAW...-.....-..... jeweils mit Option Y2
Note 8)
Potenzialausgleich
11.05.2012
Klausgrete
sartorius
Benennung
Sicherheitshinweise
Blatt 1 von 4
Zeichnungs-Nr.
65954-750-16
Revision 01

Nicht-Ex- Bereich

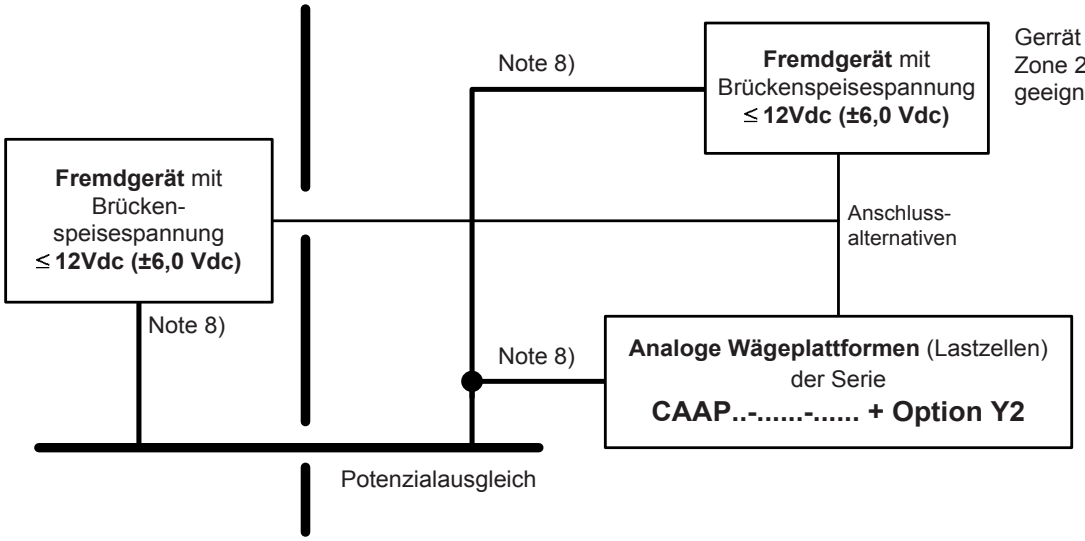
Ex-Bereich Zone 2 oder Zone 22

Gas: Gruppe IIC, Temperaturklasse T4
Staub: Gruppe IIIC, Tmax 80°C
Umgebungstemperatur: -10°C ... +40°C

3. Anschluss von Wägeplattformen


Note 8)
Indikator
CAIS. mit Option Y2
Datenausgang mit Versorgungs-nennspannung ≤ 16Vdc
ADU-Ausgang mit Brückenspeisespannung ≤ 9Vdc (±4,5 Vdc)
Analoge Wägeplattformen der Serie CAAP..-.....-..... + Option Y2 oder andere für Zone 2 oder 22 (Kategorie 3G oder 3D) geeignete Wägeplattformen, die mit Brückenspannungen von mindestens 9 Vdc (±4,5 Vdc) versorgt werden dürfen.
Note 8)
Digitale Wägeplattformen, die für Zone 2 oder 22 (Kategorie 3G oder 3D) geeignet sind und mit Versorgungsnenn-spannungen von mindestens 16 Vdc über den Datenausgang versorgt werden dürfen.
Note 8)
Potenzialausgleich

4. Anschluss an Fremdgerät


Note 8)
Fremdgerät mit Brückenspeisespannung ≤ 12Vdc (±6,0 Vdc)
Gerrät muss für Zone 2 bzw. 22 geeignet sein!
Fremdgerät mit Brücken-speisespannung ≤ 12Vdc (±6,0 Vdc)
Anschluss-alternativen
Note 8)
Note 8)
Analoge Wägeplattformen (Lastzellen) der Serie
CAAP..-.....-..... + Option Y2
Potenzialausgleich

Ex	11.05.2012	sartorius	Benennung **Sicherheitshinweise**	Blatt **2** von **4**
	Klausgrete		Zeichnungs-Nr. **65954-750-16**	**Revision 01**

Diese Sicherheitshinweise gelten für Installation, Betrieb, Wartung und Reparatur

1. Das Gerät (Indikator CAIS., Wägeplattform CAAP..-……-……, Komplettwaage CAW…-……-…...) ist geeignet für den Einsatz in explosionsgefährdeten Bereichen der **Zone 2** (Gruppe IIC, Temperaturklasse T4 bzw. T6 für die Wägeplattform) und der **Zone 22** (Gruppe IIIC; Oberflächentemperatur 80°C) gemäß der EU-Richtlinie 94/9/EG und den damit verbundenen harmonisierten Europäischen Normen. Die Einhaltung anderer Eigenschaften und Anforderungen ist damit nicht gewährleistet.
2. Das Gerät ist nur innerhalb von Gebäuden einzusetzen.
3. Das Gerät nicht als tragbares Gerät verwenden.
4. Installation, Betrieb, Wartung und Reparatur sind nach geltenden Gesetzen, Vorschriften, Verordnungen und Normen von einer dafür autorisierten Fachkraft durchzuführen. Insbesondere ist im Geltungsbereich der EU-Richtlinie 94/9/EG für die Errichtung die Norm EN 60079-14 zu beachten. Installations-, Wartungs-, Reinigungs- und Reparaturarbeiten dürfen nur im spannungslosen Zustand des Geräts und der angeschlossenen Geräte erfolgen.
5. Hinweise zur Installation, Betrieb, Wartung und Reparatur in den mitgelieferten Betriebsanleitungen (auch der angeschlossenen Geräte) unbedingt beachten! Die Temperaturbereiche der angeschlossenen Geräte sind ebenfalls zu beachten!
6. Gerät nur im Temperaturbereich von **-10°C ... +40°C** einsetzen, keinen unzulässigen Wärme- oder Kältequellen, keiner direkten Sonneneinstrahlung, keiner UV-Strahlung sowie keinen starken Stößen oder Vibrationen aussetzen und so installieren, dass umlaufend genügend Wärmeabfuhr möglich ist und externe Wärmequellen hinreichend weit entfernt sind.
7. Die Kabelverschraubungen müssen mit einem Drehmoment von 5 Nm angezogen werden. Die Kabelverschraubung für das Netzkabel nur mit 3 Nm anziehen. Die äußeren Anschlusskabel sind fest zu verlegen, um Beschädigungen und Zugbelastung zu vermeiden. Die Kabelanschlüsse im Ex-Bereich müssen gegen Selbstlösen gesichert sein.
8. Alle metallischen Teile müssen galvanisch mit dem gleichen Potenzialausgleich (PA) verbunden sein, um eventuelle elektrostatische Aufladung abführen zu können. Der Betreiber hat dazu einen Leiter von mindestens 4 mm² Querschnitt an den am Gehäuse angebrachten PA-Anschluss (gekennzeichnet durch das Erdungssymbol) anzuschließen. Am Kabelende muss eine geeignete Ringöse angebracht sein. Das Kabel muss so verlegt werden, dass der Erdungsanschluss sich nicht lösen kann. Die Niederohmigkeit dieser Verbindung zur PA-Schiene ist bei der Installation der Anlage und in regelmäßigen zeitlichen Abständen zu überprüfen. Indikator und Wägeplattform müssen einzeln an den PA angeschlossen werden, wenn zwischen ihnen keine metallische Verbindung (z. B. Stativ) verwendet wird. Den Schirm des Verbindungskabels nicht zum Potenzialausgleich verwenden!
9. Vor dem Öffnen der Geräte Spannung abschalten oder sicherstellen, dass der Bereich nicht explosionsfähig ist! Kabel im Ex-Bereich nicht unter Spannung stecken oder trennen!
10. Beim Verschließen Schrauben des Deckels fest anziehen.
11. Bei der ersten Inbetriebnahme darf der Bereich nicht explosionsgefährdet sein.
12. Die Datenleitungen zu den angeschlossenen Geräten sowie die Anschlussleitung zur Wägeplattform gelten als zündfähige Stromkreise und sind gegen unbeabsichtigtes Trennen zu sichern und dürfen nur im spannungslosen Zustand gesteckt und getrennt werden. Nicht benutzte Ausgänge müssen so abgedichtet werden, dass der IP65-Schutzgrad erhalten bleibt. Spannungstransienten vom Gerät fernhalten.
13. Datenkabel sind nur für Datentransfer gedacht und dürfen keine Versorgungsspannung vom angeschlossenen Gerät zum Indikator / zur Komplettwaage enthalten! Eine an den Datenausgang angeschlossene für Zone 2 oder 22 zulässige digitale Wägeplattform kann jedoch mit Gleichspannung versorgt werden, wenn sie mit Gleichspannung von mindestens 16 Vdc über den Datenausgang versorgt werden darf.

Ex	11.05.2012	sartorius	Benennung **Sicherheitshinweise**	Blatt **3** von **4**
	Klausgrete		Zeichnungs-Nr. **65954-750-16**	**Revision 01**

14. Der Einfluss von Streuströmen (z.B. durch magnetische Felder) ist durch die geeignete Installation zu vermeiden. Spannungstransienten vom Gerät fernhalten!
15. Den Indikator (Anzeigeeinheit des Komplettgeräts) so installieren, dass nur ein niedriges Maß an mechanischer Gefährdung des IP- Schutzes besteht. Der IP-Schutz des Gerätes beträgt IP6x nach EN 60529 / IEC 60529. Das Gerät ist für saubere Umgebungen gedacht und ist gemäß dem IP-Schutz sorgfältig zu behandeln.
16. Der Netzanschluss muss gemäß den Bestimmungen des Anwenderlandes entsprechen. Auf die korrekte Netzanschlussleitung ist zu achten. Das Netzanschlusskabel ist gegen Beschädigung zu schützen und sachgemäß an die Netzspannung (**100 - 240 Vac, ± 10%**, 50-60Hz) bzw. an die **24Vdc (± 10%)** bei Option L8 anzuschließen. Der Indikator bzw. das Komplettgerät ist für Stromkreise bis 1500A zulässig. Das Netzanschlusskabel im Ex-Bereich nur mit einem geeigneten zugelassenen Ex-Stecker betreiben. Alternativ: Stecker gegen Herausziehen sichern oder das Netzanschlusskabel direkt anklemmen. Dann für geeigneten Not-Aus-Schalter sorgen.
17. Elektrostatische Aufladung vermeiden! Reinigung des Geräts nur mit feuchten Tüchern. Dieses gilt insbesondere bei Verwendung einer Arbeitsschutzhaube. Die Vermeidung einer Gefahr durch elektrostatische Aufladung liegt in der Pflicht des Betreibers der Anlage.
18. Werden Kabel nachträglich angeschlossen, so ist darauf zu achten, dass die Anschlüsse nicht korrodiert sind. Der Schutzleiter eines Netzanschlusskabels muss den selben Querschnitt aufweisen wie die stromführenden Adern (N und L).
19. Alle externen Kabel (auch Kabel zwischen Lastzellen / Wägezellen und Anschlusskasten / Junctionbox) sind nur für feste Verlegung geeignet und müssen fest verlegt werden. Ansonsten sind Kabelverschraubungen zu verwenden, die gemäß EN60079-0 konstruiert sind und Abrundungen über einen Winkel von mindestens 75° mit einem Radius haben, der wenigstens ein Viertel des Kabeldurchmessers aber nicht mehr als 3mm aufweist.
20. Fremdbezogene Kabel (unterliegen der Verantwortung des Betreibers; Eignungstest gemäß Anhang A der EN 60079-0 durchführen). Auf die Pinbelegung achten! Verdrahtungsplan beachten. Nicht benötigte Anschlüsse entfernen.
21. Nicht benutzte Öffnungen müssen durch geeignete Verschlusskappen (Bildstopfen) so abgedichtet sein, das der IP-Schutzgrad erhalten bleibt! Nicht unter Spannung entfernen.
22. Bei Verwendung von Fremdgeräten im Ex-Bereich der Zone 2 die Gasgruppe und Temperaturklasse beachten. Die Ausgänge müssen Ex nA-Stromkreise beinhalten. Für Zone 22 die maximale Oberflächentemperatur und Gruppe beachten.
23. Chemikalien, die die Gehäusedichtungen und Kabelummantelungen angreifen können, vom Gerät fernhalten. Dazu gehören Öl, Fett, Benzin, Aceton und Ozon. Bei Unklarheit wenden Sie sich ggf. an den Hersteller.
24. Die Anlage in angemessenen Abständen von einer dafür ausgebildeten Fachkraft auf ihre ordnungsgemäße Funktion und Sicherheit überprüfen lassen.
25. Arbeitet die Anlage nicht störungsfrei, Anlage sofort vom Netz trennen und gegen weitere Benutzung sichern!
26. Im Reparaturfall nur Originalersatzteile des Herstellers verwenden!
27. Jeder Eingriff in das Gerät (außer durch von Sartorius autorisierte Personen) führt zum Verlust der Ex-Konformität für die Zone 2 und Zone 22 sowie aller Garantieansprüche. Auch ein Öffnen der Geräte darf nur durch autorisiertes Fachpersonal erfolgen.
28. Modifikationen (auch durch Sartorius-Mitarbeiter) sind nur mit schriftlicher Genehmigung erlaubt.
29. Diese Hinweise sind zusätzlich und Entbinden den Betreiber nicht von seiner Verantwortung für Installation, Betrieb und Prüfung der Anlage nach den im Anwendungsland geltenden Bestimmungen.

Ex	11.05.2012	sartorius	Benennung **Sicherheitshinweise**	Blatt **4** von **4**
	Klausgrete		Zeichnungs-Nr. **65954-750-16**	**Revision 01**

Contenu

Description générale 19

Conseils de sécurité 19

Mise en service 20

Consignes de sécurité 22

EC Declaration of Conformity 42

Manufacturer's Certificate 44

Description générale

Les appareils Combics avec le code de référence de l'option Y2 sont des appareils de la catégorie 3 qui, conformément à la directive 94/9/CE, sont adaptés à l'utilisation dans les domaines à risques d'explosions des zones 2 et 22.

L'identification se trouve dans l'annexe de la déclaration de conformité.

La gamme de température ambiante autorisée pendant le fonctionnement va de –20°C à +40°C.

Les appareils Sartorius Combics ont été équipés en usine de l'option supplémentaire nécessaire.

Conseils de sécurité

La balance répond aux directives CE et aux normes CE relatives :
– aux matériels électriques,
– à la protection antidéflagrante,
– à la compatibilité électromagnétique et
– à la sécurité électrique.
Une utilisation non conforme peut toutefois entraîner des dommages et représenter un danger pour l'opérateur.

- Ne pas exposer inutilement l'appareil à des températures, des vapeurs chimiques corrosives, de l'humidité, des chocs ou des vibrations extrêmes.
- L'appareil peut être utilisé dans des domaines à risques d'explosions des zones 2 ou 22. Respecter les normes et règlements actuellement en vigueur pour l'installation d'appareils dans les zones 2 ou 22.
- En cas d'utilisation de l'appareil dans un domaine à risques d'explosions, brancher et débrancher tous les câbles électriques de l'appareil uniquement s'il n'est pas sous tension. Avant de connecter ou de déconnecter des câbles, veuillez débrancher la balance du secteur.
- Pour effectuer l'installation, suivre les conseils d'installation en anglais ci-joints : croquis 65954-752-16-A4, voir pages 6 à 8
- Seul un spécialiste est autorisé à effectuer l'installation de l'appareil dans les zones 2 et 22. Le raccordement au secteur doit être conforme aux lois/règlements en vigueur dans votre pays. Si nécessaire, adressez-vous à votre revendeur ou au centre de service après-vente Sartorius le plus proche. Toute installation non conforme fait perdre tout droit à la garantie.
- Afin d'éviter toute charge électrostatique, mettre toutes les parties métalliques à la terre.
- Un spécialiste ayant reçu la formation correspondante doit vérifier à intervalles réguliers que l'installation fonctionne correctement et en toute sécurité.

- S'il vous semble que l'appareil ne peut plus fonctionner sans danger, débranchez-le du secteur et assurez-vous qu'il ne sera plus utilisé (par ex. en cas de dommage). Respecter le règlement de prévention des accidents et former le personnel opérateur en conséquence.
- Toutes les opérations de maintenance, de nettoyage et de réparation sur l'appareil doivent être effectuées uniquement si l'appareil n'est pas sous tension.

- Utiliser les appareils en fonction de leur indice de protection IP. Respecter l'indice de protection IP lors du nettoyage de l'appareil.
- Attention si vous utilisez des câbles de raccordement prêts à l'emploi : les câbles préparés par d'autres ont souvent une mauvaise affectation des broches pour les appareils Sartorius. C'est pourquoi vous devez vérifier les schémas de câblage avant de connecter et de supprimer les branchements non conformes. L'utilisateur assume l'entière responsabilité en cas d'utilisation de câbles non livrés par Sartorius.

Conditions d'installation :
Avant de mettre votre appareil en service, assurez-vous que le câble d'alimentation en courant est correctement raccordé au secteur. Mettre tous les appareils à la terre en reliant les bornes d'équipotentialité ou les orifices situés sur les appareils à la ligne d'équipotentialité à l'aide d'un câble de mise à la masse (non compris dans la livraison).
La section du câble doit être conforme aux prescriptions nationales en vigueur.
Seul un spécialiste ayant reçu la formation correspondante est autorisé à effectuer l'installation conformément aux lois/règlements en vigueur et selon les règles reconnues de la technologie.

Utilisez uniquement les câbles et les longueurs de câbles autorisés par Sartorius et qui respectent les limitations des longueurs de câbles en raison des valeurs de capacité et d'inductance et de la compatibilité électromagnétique.
Ne mettez l'installation en marche pour la première fois que si vous vous êtes assuré que le lieu d'installation ne se trouve pas dans un domaines à risques d'explosions.
Si lors de la mise en service, vous constatez des écarts provoqués par des dommages dus au transport (par ex. pas d'affichage), débranchez l'installation du secteur et informez-en le service après-vente.

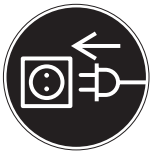
Avant de connecter ou de déconnecter les lignes de commande et de transmission des données, vous devez absolument débrancher l'appareil du secteur.
Toute intervention sur l'appareil (sauf par du personnel agréé par la société Sartorius) a pour conséquence la perte de la conformité antidéflagrante pour les zones 2 et 22 ainsi que la perte de tout droit à la garantie.

Si vous utilisez votre appareil en dehors de la République Fédérale d'Allemagne dans un domaine à risques d'explosions des zones 2 ou 22, vous devez respecter les lois/règlements nationaux en vigueur. Renseignez-vous auprès de votre revendeur ou du service après-vente Sartorius en ce qui concerne les directives en vigueur dans votre pays.

Mise en service

Si nécessaire, raccorder la plate-forme de pesée (pas avec les balances complètes CAW.S..) :

○ Voir le mode d'emploi de l'indicateur correspondant.

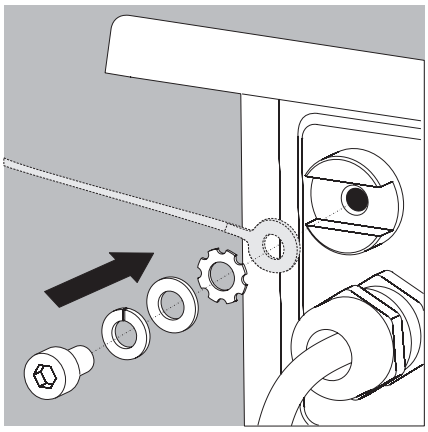


Raccordement au secteur :

○ Voir le mode d'emploi de l'indicateur Combics correspondant.

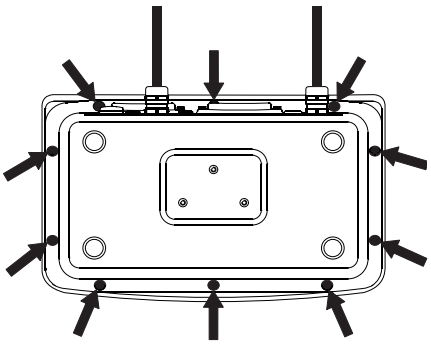
○ Moment du couple minimum du passe-câble à vis pour le raccordement au secteur : 3 Nm

○ Moment du couple minimum pour d'autres passe-câbles à vis : 5 Nm



Connexion du conducteur d'équipotentialité sur l'indicateur CAIS et les balances complètes CAW.S.. (mise à la terre) :

● Raccorder l'appareil à une borne d'équipotentialité centrale à l'aide d'un câble de mise à la masse (non compris dans la livraison).

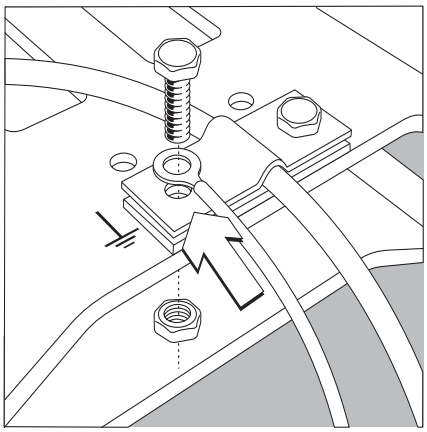


● **Si nécessaire, fermer l'indicateur Combics pour le protéger contre les vapeurs :**
– Utiliser une clé dynamométrique.
– Moment du couple pour les 10 vis : 1 Nm

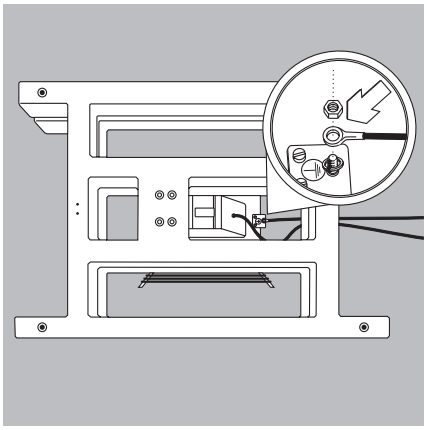
● Effectuer le montage de manière à ce que la protection IP67/ID69K soit garantie. Pour obtenir de plus amples informations, veuillez vous adresser au service après-vente Sartorius.

Connexion du conducteur d'équipotentialité sur les plates-formes de pesée CAAPS... et CAPP... (mise à la terre) :

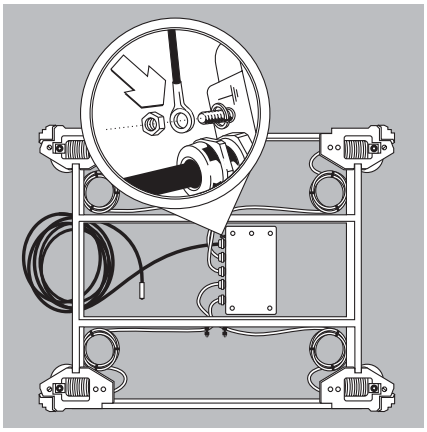
- Afin d'éviter toute charge électrostatique, mettre les parties métalliques de la plate-forme de pesée à la terre. Raccorder l'appareil à une borne d'équipotentialité centrale à l'aide d'un câble de mise à la masse (non compris dans la livraison).
- Serrez les vis et les écrous.



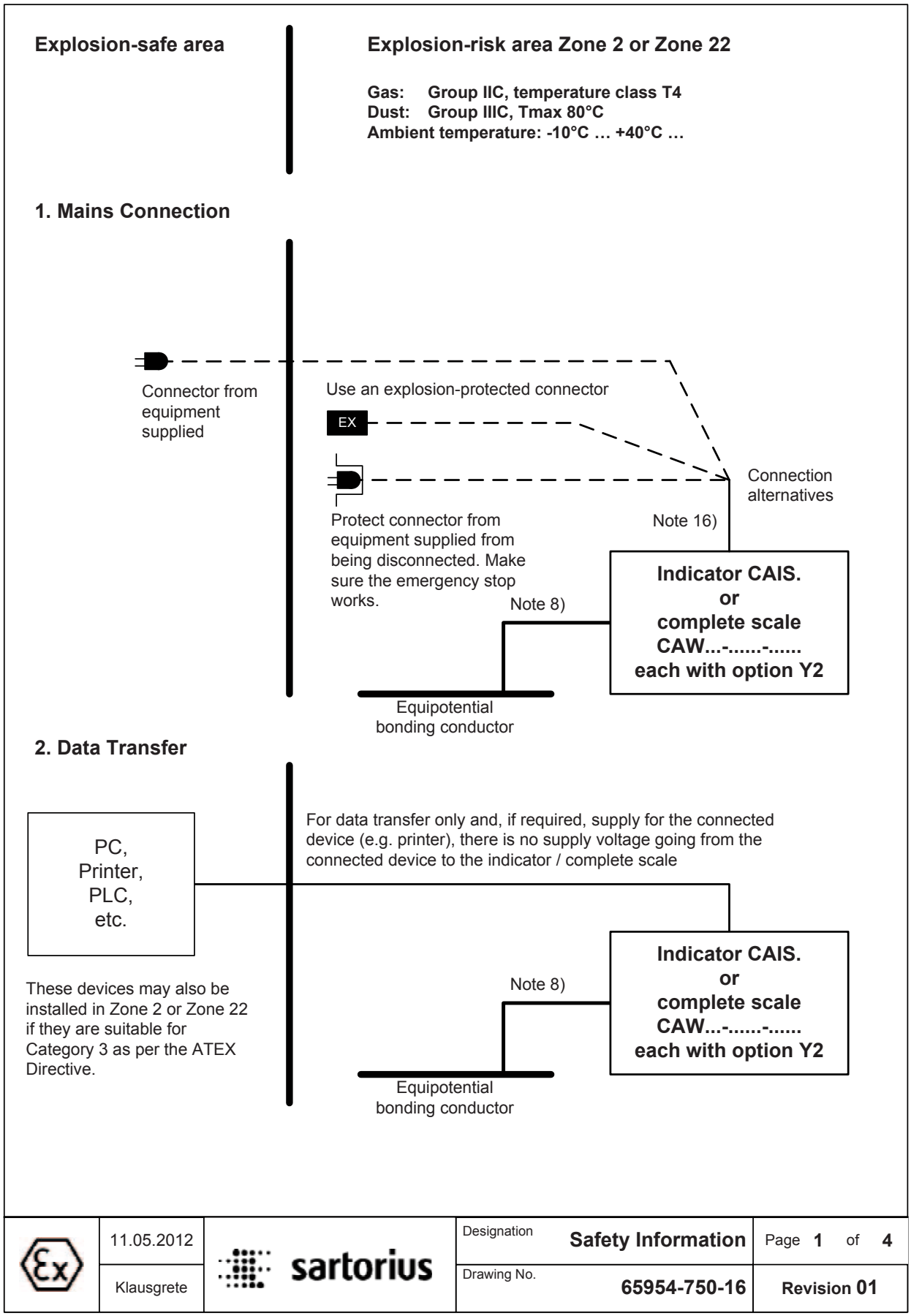
Plates-formes de pesée CAAPS1.. et CAAPP1.. avec des dimensions jusqu'à 500 × 400 mm



Plates-formes de pesée CAAPS1.. et CAAPP1.. avec des dimensions à partir de 650 × 500 mm



Plates-formes de pesée CAAPS4.. et CAAPP4..


Explosion-safe area
Explosion-risk area Zone 2 or Zone 22
Gas: Group IIC, temperature class T4
Dust: Group IIIC, Tmax 80°C
Ambient temperature: -10°C … +40°C …
1. Mains Connection
Connector from equipment supplied
Use an explosion-protected connector
EX
Connection alternatives
Protect connector from equipment supplied from being disconnected. Make sure the emergency stop works.
Note 16)
Note 8)
Indicator CAIS.
or
complete scale
CAW...-.....-.....
each with option Y2
Equipotential bonding conductor
2. Data Transfer
PC,
Printer,
PLC,
etc.
For data transfer only and, if required, supply for the connected device (e.g. printer), there is no supply voltage going from the connected device to the indicator / complete scale
These devices may also be installed in Zone 2 or Zone 22 if they are suitable for Category 3 as per the ATEX Directive.
Note 8)
Indicator CAIS.
or
complete scale
CAW...-.....-.....
each with option Y2
Equipotential bonding conductor

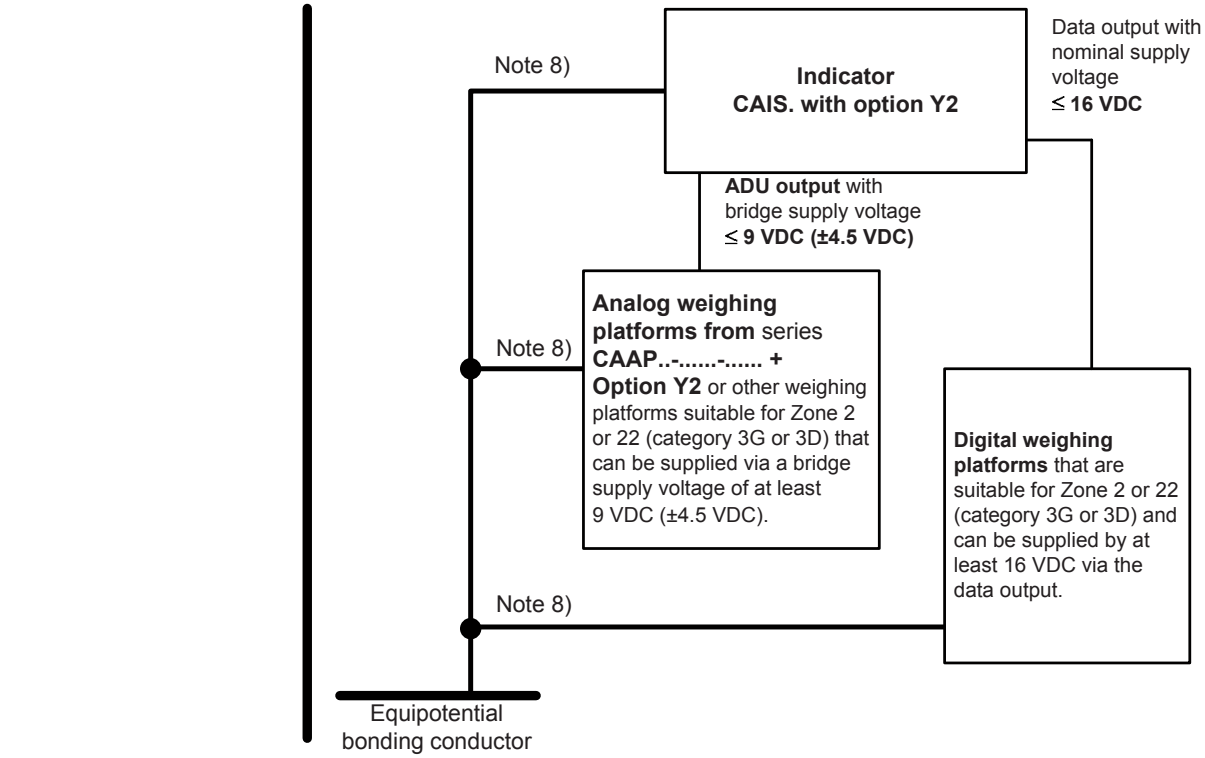
	11.05.2012	sartorius	Designation **Safety Information**	Page **1** of **4**
	Klausgrete		Drawing No. **65954-750-16**	**Revision 01**

Explosion-safe area

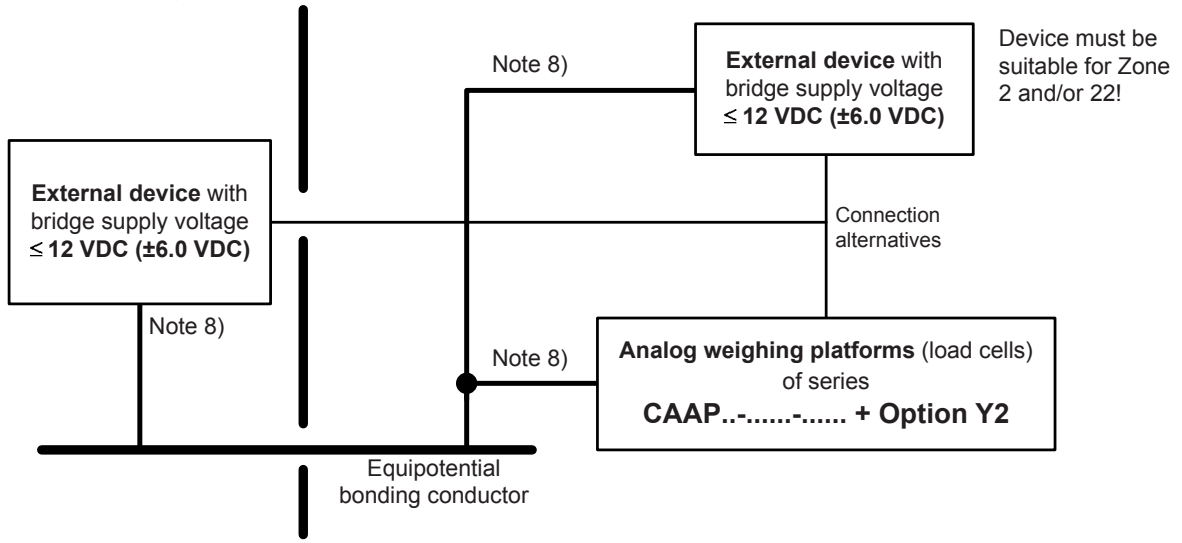
Explosion-risk area Zone 2 or Zone 22

Gas: Group IIC, temperature class T4
Dust: Group IIIC, Tmax 80°C
Ambient temperature: -10°C … +40°C

3. Connecting Weighing Platforms


Note 8)
Indicator
CAIS. with option Y2
Data output with nominal supply voltage
≤ 16 VDC
ADU output with bridge supply voltage
≤ 9 VDC (±4.5 VDC)
Note 8)
Analog weighing platforms from series CAAP..-.....-..... + Option Y2 or other weighing platforms suitable for Zone 2 or 22 (category 3G or 3D) that can be supplied via a bridge supply voltage of at least 9 VDC (±4.5 VDC).
Digital weighing platforms that are suitable for Zone 2 or 22 (category 3G or 3D) and can be supplied by at least 16 VDC via the data output.
Note 8)
Equipotential bonding conductor

4. Connecting External Devices


Note 8)
External device with bridge supply voltage
≤ 12 VDC (±6.0 VDC)
Device must be suitable for Zone 2 and/or 22!
External device with bridge supply voltage
≤ 12 VDC (±6.0 VDC)
Connection alternatives
Note 8)
Note 8)
Analog weighing platforms (load cells) of series
CAAP..-.....-..... + Option Y2
Equipotential bonding conductor

Ex	11.05.2012	sartorius	Designation **Safety Information**	Page **2** of **4**
	Klausgrete		Drawing No. **65954-750-16**	**Revision 01**

These safety instructions apply to installation, use, maintenance and repair

1. The device (CAIS. indicator, CAAP weighing platform..-……-……, CAW complete scale…-……-…...) is suitable for use in potentially explosive atmospheres of **Zone 2** (Group IIC, temperature class T4 or T6 for weighing platforms) and **Zone 22** (Group IIIC; surface temperature 80°C) according to EU Directive 94/9/EC and applicable harmonized European standards. This does not guarantee compliance with other properties and requirements.
2. The device may only be used indoors.
3. Do not use it as a portable instrument.
4. Installation, operation, maintenance and repairs should only be performed by an authorized specialist, in accordance with applicable laws, rules and regulations, ordinances and standards. Particular attention should be paid to Standard EN 60079-14 within the scope of validity of EU Directive 94/9/EC for the installation. Installation, maintenance, cleaning and repair work may only take place with all power disconnected from the device and any connected peripheral devices.
5. It is essential that recommendations on the installation, operation, maintenance and repair contained in the operating instructions supplied are complied with for all equipment (including connected devices). The temperature ranges of connected devices must also be taken into account.
6. The device should only be used in a temperature range of **-10°C … +40°C,** do not expose it to unacceptable sources of heat or cold, direct sunlight, UV radiation, shocks or vibrations, and the installation should ensure that heat can be properly dissipated and external heat sources are kept at a sufficient distance.
7. Tighten the cable entry glands using a torque of 5 Nm. The cable gland for the power cord should be tightened with a torque of only 3 Nm. Install the external connecting cables firmly to avoid damage and strain. The cable connections inside the explosion-risk area must be secured against loosening.
8. All metal parts must be electrically connected to the same equipotential bonding conductor (PA) so that any electrostatic charges can be conducted away from the equipment. For this purpose, the equipment operator is obligated to connect a lead with a gauge of at least 4 mm² (cross section) to the equipotential bonding terminal (indicated by the ground symbol) located on the housing. A suitable ring terminal must be attached to the end of the cable. The cable must be laid so that the ground connector cannot come loose. The connection to the equipotential bonding conductor should be checked to see if it is of low resistance at the time of installation and at regular intervals. The indicator and weighing platform must each be connected individually to the equipotential bonding conductor if no metal connection (e.g. support arm) is used between them. Do not use the shield of the connection cable for the equipotential bonding conductor.
9. Before opening devices, switch off the supply voltage, or make sure that the area is not potentially explosive. Do not connect or disconnect any live cables inside an explosion-risk area.
10. When closing, make sure the cover screws are tightly secured.
11. The device should only be operated for the first time when it is certain that the area is not potentially explosive.
12. Data lines to connected devices and the connection cable to the weighing platform should be secured against accidental disconnection and may only be connected and disconnected when the power supply is turned off. Block unused outlets to guarantee the IP 65 level of protection. Keep any transitory voltage phenomenon away from the device.
13. Data cables are for data transfer only and may not supply any power from the connected device to the indicator / complete scale. However, one digital weighing platform suitable for use in Zone 2 or 22 connected to the data output can be supplied via direct voltage if it can be supplied by direct voltage of at least 16 VDC via the data output.

14. During installation, take suitable steps to prevent stray electrical interference (e.g. due to magnetic fields). Keep any voltage transients away from the device.
15. The indicator (indicator of the complete scale) should be installed so that there is only a low risk of mechanical danger to the IP protection. The IP protection rating of the device is IP6x according to EN 60529 / IEC 60529. The device is designed for clean environments and must be handled carefully according to the IP protection rating.
16. The power connection must be made in accordance with the regulations applicable in the country of operation. A correct power connection must be ensured. The power supply cable should be protected against damage and properly connected to the power supply (**100 - 240 VAC, ± 10%**, 50-60Hz) or **24 VDC (± 10%)** for Option L8**.** The indicator and/or complete scale is approved for circuits up to 1500 A. Only use the power supply connection cable in the hazardous area with a suitable and approved explosion-protected plug. Alternatively: Protect connector from being disconnected or attach the power supply connection cable directly. Be sure to provide a suitable emergency shut-off switch.
17. Avoid generating static electricity. Only use a damp cloth to clean the device. This is especially true when using a dust cover. The equipment operator assumes responsibility for preventing any risks caused by electrostatic charging.
18. If cables are connected subsequently, make sure that the connections are not corroded. The grounding conductor of a mains connection cable must have the same cross section as the current-carrying wires (N and L).
19. All external cables (even cables between load cells / weigh cells and connection box / junction box) are only suitable for fixed placement and must be laid fixed. Otherwise, use screwed connections designed according to EN60079-0 and rounded at an angle of 75º (minimum) and a radius at least equal to one-quarter of the diameter of the cables, but without exceeding 3 mm.
20. Cables from third-party manufacturers (subject to the user's responsibility) must be tested for suitability according to Appendix A EN 60079-0. Pay attention to the pin assignment. Pay attention to the wiring diagram. Remove unneeded connections.
21. Unused openings must be sealed using suitable cover caps (dummy plugs) to ensure their IP protection rating. Do not remove while it is carrying current.
22. When using external devices in Zone 2 hazardous areas, pay attention to the gas group and temperature class. The outputs must include the Ex nA electrical circuits. Pay attention to the maximum surface temperature and group for Zone 22.
23. Chemicals that can attack housing gaskets and cable sheathings must be kept away from the device. These include oil, grease, benzine, acetone, and ozone. If you are uncertain, contact the manufacturer.
24. The installation must be inspected for correct function and safety by a trained and qualified person at appropriate intervals.
25. If the installation does not operate properly, disconnect it from the supply voltage immediately and secure it against further use.
26. In the event of repair, use only original spare parts supplied by the manufacturer.
27. Any modifications to the instrument (except by persons authorized by Sartorius) cause loss of conformity for use in Zone 2 and Zone 22 explosion-risk areas and invalidate all guarantee claims. Similarly, the device may only be opened by qualified and authorized personnel.
28. Modifications (also those by Sartorius personnel) are subject to written approval.
29. These instructions are given in addition to those in the instruction manuals and do not release the operator from his responsibilities for the installation, operation and inspection of the equipment in compliance with any applicable regulations in the country of use.

Recyclage

Uso previsto 27

Istruzioni di sicurezza e di avvertenza 27

Messa in funzione 28

Istruzioni di sicurezza 30

EC Declaration of Conformity 42

Manufacturer's Certificate. 44

Uso previsto

Gli strumenti per pesare Combics con il codice di opzione Y2 sono da considerarsi in conformità alla Direttiva 94/9/CE, degli strumenti della Categoria 3, adatti all'impiego nelle aree a rischio di esplosione della Zona 2 e 22.

Il contrassegno degli apparecchi si trova nell'Allegato del certificato di conformità.

La temperatura ambiente permessa durante il funzionamento è di –20°C fino a +40°C.

Gli strumenti per pesare Combics Sartorius sono muniti in fabbrica dell'equipaggiamento supplementare richiesto.

Istruzioni di sicurezza e di avvertenza

Lo strumento per pesare soddisfa le prescrizioni delle direttive CE e norme CE per:
– il materiale elettrico
– la protezione antideflagrante
– compatibilità elettromagnetica
– sicurezza elettrica
Un uso non idoneo dell'apparecchio può causare dei danni a persone e cose.

- Non esporre l'apparecchio a temperature estreme, vapori chimici aggressivi, umidità, urti e vibrazioni.
- Lo strumento può essere impiegato in aree a pericolo di esplosione della Zona 2 o 22. Si devono osservare le norme e disposizioni vigenti per l'installazione degli strumenti in tali zone.
- Utilizzando lo strumento nell'area a pericolo di esplosione, tutti i cavi conduttori di corrente possono essere estratti o inseriti solo se lo strumento non è sotto corrente. Prima di collegare o scollegare i cavi, staccare lo strumento dalla corrente elettrica.
- Per l'installazione osservare le istruzioni allegate: codice di identificazione in inglese 65954-753-16-A4 (vedi pagina 6 fino a 8)
- L'installazione degli strumenti nella Zona 2 e 22 deve essere eseguita da personale specializzato. Se il caso lo necessita, rivolgersi al proprio rivenditore o al Centro Assistenza Tecnica Sartorius. I diritti di garanzia decadono se l'installazione non è stata fatta in modo regolare.
- Evitare il formarsi di cariche elettrostatiche, collegare a terra tutte le parti in metallo.
- Far controllare l'impianto ad intervalli regolari per garantirne un funzionamento regolare e sicuro; il controllo deve essere seguito da un tecnico specializzato qualificato.

- Se Vi sembra che la sicurezza operativa dello strumento non sia più garantita, staccarlo dalla tensione di rete e assicurare lo strumento contro un eventuale utilizzo (per es. in caso di guasto). Osservare il regolamento sugli infortuni ed istruire il personale di servizio in modo adeguato.
- Assicurasi che l'apparecchio sia staccato dalla corrente elettrica prima di eseguire lavori di manutenzione, pulizia e riparazione.

- Gli strumenti devono essere trattati con cura secondo il loro livello di protezione. Questo vale anche durante le operazioni di pulizia.
- Cavi non forniti dalla Sartorius hanno spesso un'altra assegnazione dei pin rispetto ai cavi usati dalla Sartorius. Prima del collegamento del cavo agli strumenti Sartorius, controllare lo schema di assegnazione dei pin e staccare le linee che differiscono. L'operatore si assume la responsabilità per qualsiasi danno a persona o cosa causato dall'uso di cavi non forniti dalla Sartorius.

Condizioni per l'installazione
Prima della messa in funzione, assicurarsi che il cavo di rete sia collegato in modo regolare alla rete elettrica. Tutti gli apparecchi devono essere collegati a terra con il cavo di massa (non fornito nell'equipaggiamento) mediante il morsetto del conduttore equipotenziale presente oppure mediante i fori sul conduttore equipotenziale.
La sezione del cavo dipende dalle disposizioni nazionali vigenti. L'installazione deve essere eseguita da un tecnico specializzato secondo le prescrizioni e le regole tecniche.

Usare soltanto i cavi e le lunghezze permessi dalla Sartorius che rispettano le limitazioni riguardanti le lunghezze del cavo in base ai valori di capacità e di induttanza e del comportamento di compatibilità elettromagnetica (CEM).
Mettere in funzione l'impianto la prima volta solo se si è sicuri che l'area non sia a pericolo di esplosione. Se durante la messa in funzione iniziale si rilevano delle irregolarità dovute a danni di trasporto (per es. nessuna visualizzazione sul display), staccare l'apparecchio dalla rete ed informare i tecnici del servizio Sartorius.

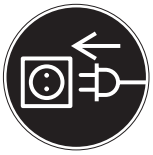
Prima di collegare o staccare le linee di trasmissione dei dati o di controllo, l'apparecchio deve essere assolutamente staccato dall'alimentazione di corrente.
Ogni intervento sullo strumento (eccetto da parte del personale autorizzato Sartorius) comporta la perdita della conformità per le aree esplosive, Zona 2 e 22, e di tutti i diritti di garanzia.

Se lo strumento e gli accessori vengono impiegati fuori della Germania in un'area a pericolo di esplosione, bisogna osservare le leggi/disposizioni vigenti nel proprio Paese. Rivolgersi al proprio rivenditore o Centro di Assistenza Cliente Sartorius per essere informati sulla normativa vigente nel proprio Paese.

Messa in funzione

Eventuale collegamento della piattaforma di pesata (non per le bilance complete CAW.S..)

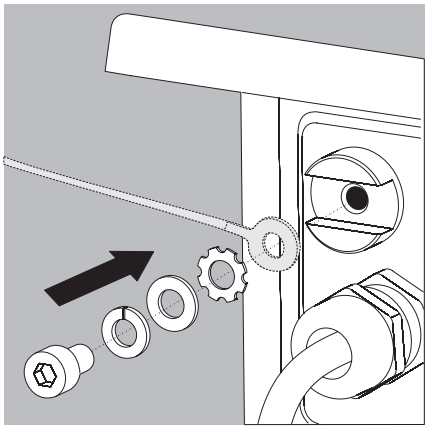
○ Vedi il manuale di istruzioni dell'indicatore relativo.



Collegamento alla rete elettrica

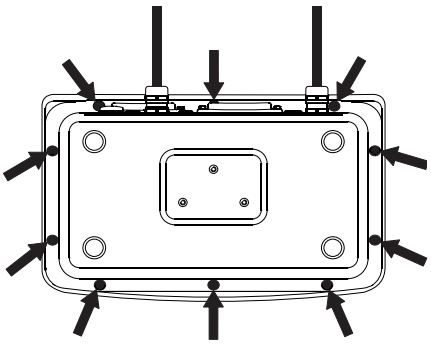
○ Vedi il manuale di istruzioni dell'indicatore Combics relativo.
○ Momento torcente iniziale minimo del pressacavo per il collegamento alla rete: 3 Nm

○ Momento torcente iniziale minimo per altri pressacavi: 5 Nm



Effettuare il collegamento del conduttore equipotenziale sull'indicatore CAIS e sulle bilance complete CAW.S.. (collegamento a terra)

● Collegare l'apparecchio con un cavo di massa (non fornito con l'equipaggiamento) alla barra centrale del conduttore equipotenziale.

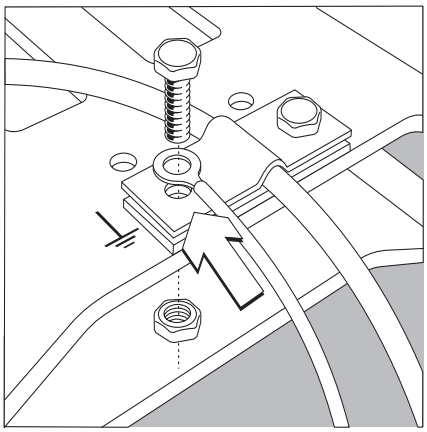


● **Se richiesto, chiudere l'indicatore Combics in modo sicuro contro vapori e gas**
– Utilizzare una chiave torsiometrica
– Momento torcente per le 10 viti: 1 Nm

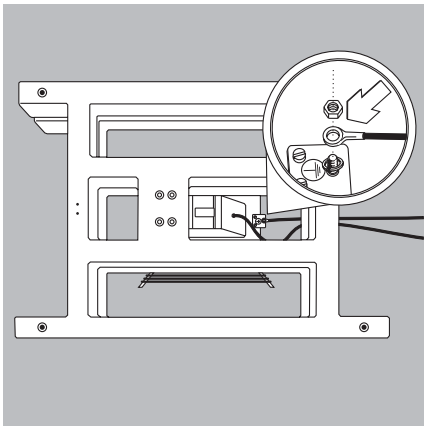
● Effettuare il montaggio in modo da garantire il livello di protezione IP67/IP69K.
Per maggiori informazioni a riguardo, contattare il Servizio Sartorius.

Effettuare il collegamento del conduttore equipotenziale sulle piattaforme di pesata CAAPS... e CAAPP... (collegamento a terra)

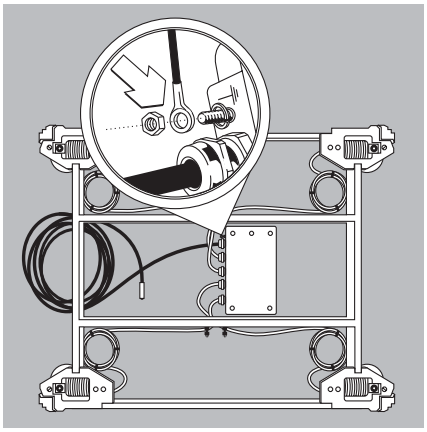
- Collegare a terra le parti metalliche della piattaforma di pesata per evitare il formarsi di cariche elettrostatiche. Collegare l'apparecchio con un cavo di massa (non fornito con l'equipaggiamento) alla barra centrale del conduttore equipotenziale.
- Serrare le viti e i dadi.



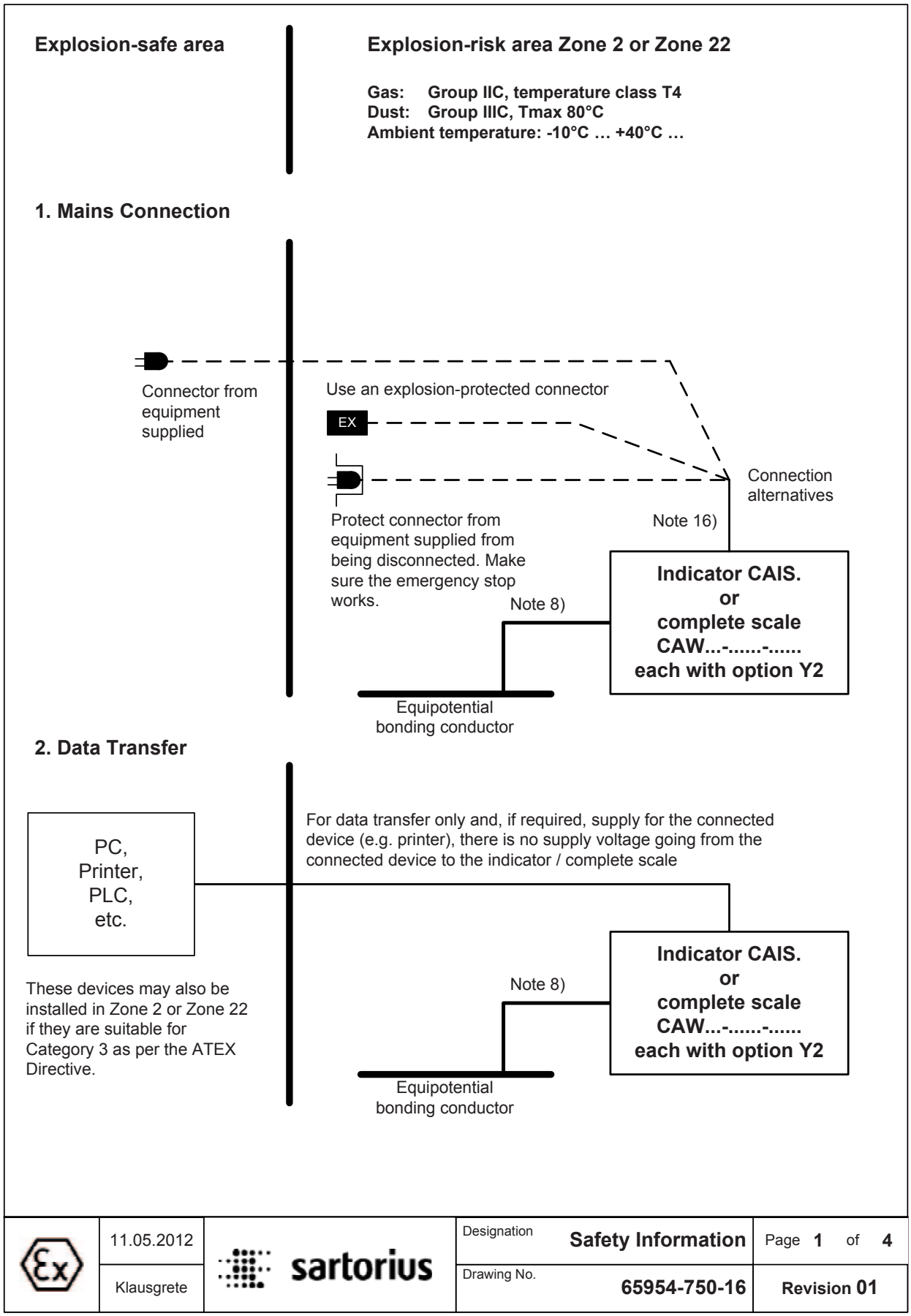
Piattaforme di pesata CAAPS1.. e CAAPP1.. dimensioni fino a 500 × 400 mm



Piattaforme di pesata CAAPS1.. e CAAPP1.. dimensioni a partire da 650 × 500 mm



Piattaforme di pesata CAAPS4.. e CAAPP4..:


Explosion-safe area
Explosion-risk area Zone 2 or Zone 22
Gas: Group IIC, temperature class T4
Dust: Group IIIC, Tmax 80°C
Ambient temperature: -10°C … +40°C …
1. Mains Connection
Connector from equipment supplied
Use an explosion-protected connector
EX
Connection alternatives
Protect connector from equipment supplied from being disconnected. Make sure the emergency stop works.
Note 16)
Note 8)
Indicator CAIS. or complete scale CAW...-.....-..... each with option Y2
Equipotential bonding conductor
2. Data Transfer
PC, Printer, PLC, etc.
For data transfer only and, if required, supply for the connected device (e.g. printer), there is no supply voltage going from the connected device to the indicator / complete scale
These devices may also be installed in Zone 2 or Zone 22 if they are suitable for Category 3 as per the ATEX Directive.
Note 8)
Indicator CAIS. or complete scale CAW...-.....-..... each with option Y2
Equipotential bonding conductor

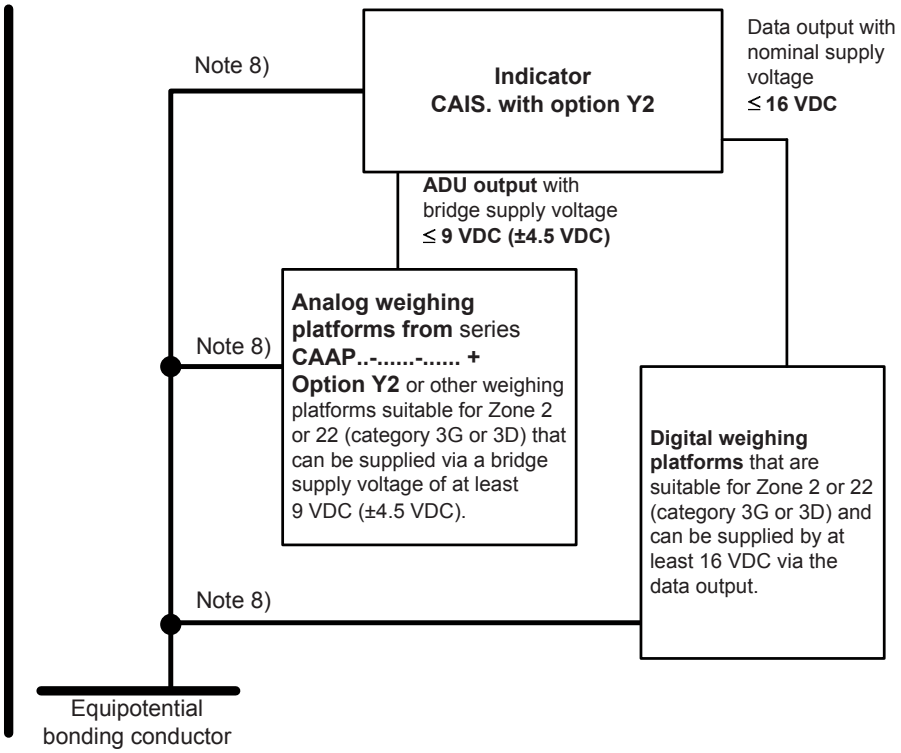
	11.05.2012	sartorius	Designation **Safety Information**	Page **1** of **4**
	Klausgrete		Drawing No. **65954-750-16**	**Revision 01**

Explosion-safe area

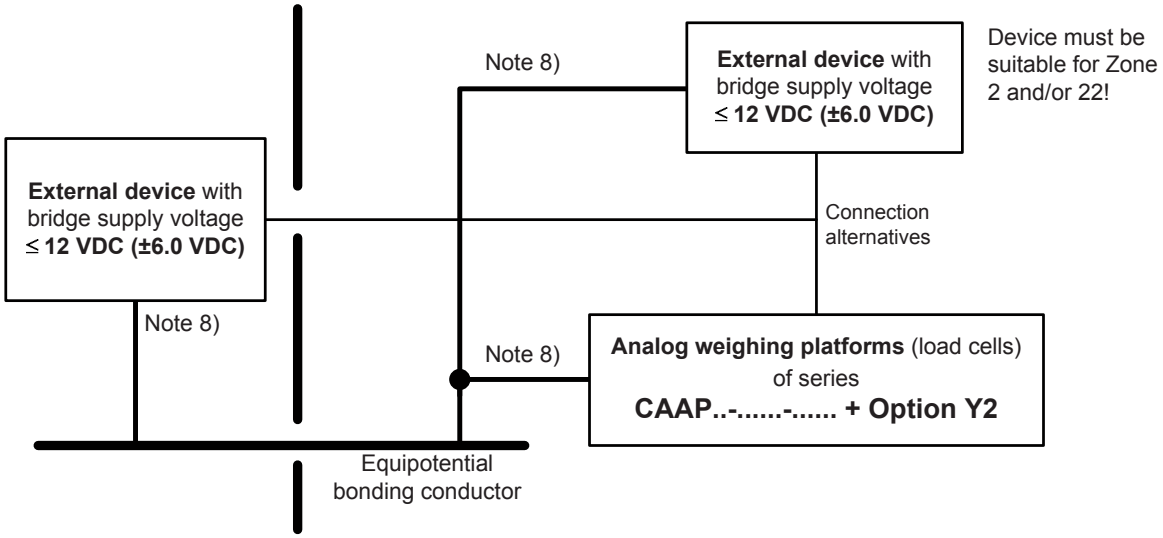
Explosion-risk area Zone 2 or Zone 22

Gas: Group IIC, temperature class T4
Dust: Group IIIC, Tmax 80°C
Ambient temperature: -10°C … +40°C

3. Connecting Weighing Platforms


Note 8)
Indicator
CAIS. with option Y2
Data output with nominal supply voltage
≤ 16 VDC
ADU output with bridge supply voltage
≤ 9 VDC (±4.5 VDC)
Note 8)
Analog weighing platforms from series CAAP..-.....-..... + Option Y2 or other weighing platforms suitable for Zone 2 or 22 (category 3G or 3D) that can be supplied via a bridge supply voltage of at least 9 VDC (±4.5 VDC).
Digital weighing platforms that are suitable for Zone 2 or 22 (category 3G or 3D) and can be supplied by at least 16 VDC via the data output.
Note 8)
Equipotential bonding conductor

4. Connecting External Devices


Note 8)
External device with bridge supply voltage
≤ 12 VDC (±6.0 VDC)
Device must be suitable for Zone 2 and/or 22!
External device with bridge supply voltage
≤ 12 VDC (±6.0 VDC)
Connection alternatives
Note 8)
Note 8)
Analog weighing platforms (load cells) of series
CAAP..-.....-..... + Option Y2
Equipotential bonding conductor

	11.05.2012	sartorius	Designation **Safety Information**	Page **2** of **4**
	Klausgrete		Drawing No. **65954-750-16**	**Revision 01**

These safety instructions apply to installation, use, maintenance and repair

1. The device (CAIS. indicator, CAAP weighing platform..-……-……, CAW complete scale…-……-…...) is suitable for use in potentially explosive atmospheres of **Zone 2** (Group IIC, temperature class T4 or T6 for weighing platforms) and **Zone 22** (Group IIIC; surface temperature 80°C) according to EU Directive 94/9/EC and applicable harmonized European standards. This does not guarantee compliance with other properties and requirements.
2. The device may only be used indoors.
3. Do not use it as a portable instrument.
4. Installation, operation, maintenance and repairs should only be performed by an authorized specialist, in accordance with applicable laws, rules and regulations, ordinances and standards. Particular attention should be paid to Standard EN 60079-14 within the scope of validity of EU Directive 94/9/EC for the installation. Installation, maintenance, cleaning and repair work may only take place with all power disconnected from the device and any connected peripheral devices.
5. It is essential that recommendations on the installation, operation, maintenance and repair contained in the operating instructions supplied are complied with for all equipment (including connected devices). The temperature ranges of connected devices must also be taken into account.
6. The device should only be used in a temperature range of **-10°C … +40°C,** do not expose it to unacceptable sources of heat or cold, direct sunlight, UV radiation, shocks or vibrations, and the installation should ensure that heat can be properly dissipated and external heat sources are kept at a sufficient distance.
7. Tighten the cable entry glands using a torque of 5 Nm. The cable gland for the power cord should be tightened with a torque of only 3 Nm. Install the external connecting cables firmly to avoid damage and strain. The cable connections inside the explosion-risk area must be secured against loosening.
8. All metal parts must be electrically connected to the same equipotential bonding conductor (PA) so that any electrostatic charges can be conducted away from the equipment. For this purpose, the equipment operator is obligated to connect a lead with a gauge of at least 4 mm² (cross section) to the equipotential bonding terminal (indicated by the ground symbol) located on the housing. A suitable ring terminal must be attached to the end of the cable. The cable must be laid so that the ground connector cannot come loose. The connection to the equipotential bonding conductor should be checked to see if it is of low resistance at the time of installation and at regular intervals. The indicator and weighing platform must each be connected individually to the equipotential bonding conductor if no metal connection (e.g. support arm) is used between them. Do not use the shield of the connection cable for the equipotential bonding conductor.
9. Before opening devices, switch off the supply voltage, or make sure that the area is not potentially explosive. Do not connect or disconnect any live cables inside an explosion-risk area.
10. When closing, make sure the cover screws are tightly secured.
11. The device should only be operated for the first time when it is certain that the area is not potentially explosive.
12. Data lines to connected devices and the connection cable to the weighing platform should be secured against accidental disconnection and may only be connected and disconnected when the power supply is turned off. Block unused outlets to guarantee the IP 65 level of protection. Keep any transitory voltage phenomenon away from the device.
13. Data cables are for data transfer only and may not supply any power from the connected device to the indicator / complete scale. However, one digital weighing platform suitable for use in Zone 2 or 22 connected to the data output can be supplied via direct voltage if it can be supplied by direct voltage of at least 16 VDC via the data output.

14. During installation, take suitable steps to prevent stray electrical interference (e.g. due to magnetic fields). Keep any voltage transients away from the device.
15. The indicator (indicator of the complete scale) should be installed so that there is only a low risk of mechanical danger to the IP protection. The IP protection rating of the device is IP6x according to EN 60529 / IEC 60529. The device is designed for clean environments and must be handled carefully according to the IP protection rating.
16. The power connection must be made in accordance with the regulations applicable in the country of operation. A correct power connection must be ensured. The power supply cable should be protected against damage and properly connected to the power supply (**100 - 240 VAC, ± 10%**, 50-60Hz) or **24 VDC (± 10%)** for Option L8**.** The indicator and/or complete scale is approved for circuits up to 1500 A. Only use the power supply connection cable in the hazardous area with a suitable and approved explosion-protected plug. Alternatively: Protect connector from being disconnected or attach the power supply connection cable directly. Be sure to provide a suitable emergency shut-off switch.
17. Avoid generating static electricity. Only use a damp cloth to clean the device. This is especially true when using a dust cover. The equipment operator assumes responsibility for preventing any risks caused by electrostatic charging.
18. If cables are connected subsequently, make sure that the connections are not corroded. The grounding conductor of a mains connection cable must have the same cross section as the current-carrying wires (N and L).
19. All external cables (even cables between load cells / weigh cells and connection box / junction box) are only suitable for fixed placement and must be laid fixed. Otherwise, use screwed connections designed according to EN60079-0 and rounded at an angle of 75º (minimum) and a radius at least equal to one-quarter of the diameter of the cables, but without exceeding 3 mm.
20. Cables from third-party manufacturers (subject to the user's responsibility) must be tested for suitability according to Appendix A EN 60079-0. Pay attention to the pin assignment. Pay attention to the wiring diagram. Remove unneeded connections.
21. Unused openings must be sealed using suitable cover caps (dummy plugs) to ensure their IP protection rating. Do not remove while it is carrying current.
22. When using external devices in Zone 2 hazardous areas, pay attention to the gas group and temperature class. The outputs must include the Ex nA electrical circuits. Pay attention to the maximum surface temperature and group for Zone 22.
23. Chemicals that can attack housing gaskets and cable sheathings must be kept away from the device. These include oil, grease, benzine, acetone, and ozone. If you are uncertain, contact the manufacturer.
24. The installation must be inspected for correct function and safety by a trained and qualified person at appropriate intervals.
25. If the installation does not operate properly, disconnect it from the supply voltage immediately and secure it against further use.
26. In the event of repair, use only original spare parts supplied by the manufacturer.
27. Any modifications to the instrument (except by persons authorized by Sartorius) cause loss of conformity for use in Zone 2 and Zone 22 explosion-risk areas and invalidate all guarantee claims. Similarly, the device may only be opened by qualified and authorized personnel.
28. Modifications (also those by Sartorius personnel) are subject to written approval.
29. These instructions are given in addition to those in the instruction manuals and do not release the operator from his responsibilities for the installation, operation and inspection of the equipment in compliance with any applicable regulations in the country of use.

Contenido

Uso previsto 35

Advertencias de seguridad 35

Puesta en marcha 36

Notas de seguridad 38

EC Declaration of Conformity 42

Manufacturer's Certificate 44

Uso previsto

En los aparatos Combics con opción Y2 se trata de, según la Directiva 94/9/CEE, aparatos de la categoría 3, apropiados para el empleo en atmósferas potencialmente explosivas de las zonas 2 y 22.

La identificación se obtiene de los datos de la declaración de conformidad.

La temperatura de entorno permitida durante el funcionamiento: –20°C hasta +40°C.

Durante el proceso de fabricación Sartorius, los aparatos han sido preparados con el equipamiento adicional necesario.

Advertencias de seguridad

La báscula cumple las Directivas CEE y Normas CE:
– para equipos de funcionamiento eléctrico
– para la protección contra explosiones
– para la compatibilidad electromagnética
– para la seguridad eléctrica
Un uso inapropiado, no obstante, puede causar daños personales y materiales.

- No exponer innecesariamente el aparato a temperaturas extremas, emanaciones químicas agresivas, humedad, choques y vibraciones.
- El aparato puede emplearse en áreas potencialmente explosivas de la zona 2 o 22. Han de cumplirse las normas y prescripciones actuales vigentes para la instalación de aparatos en la zona 2 o 22.
- Al utilizar aparatos en áreas potencialmente explosivas, todos los cables conductores de corriente han de ser conectados/desconectados del aparato sólo con aparato separado de la tensión de red ¡Separar la báscula de la tensión de red, antes de conectar o separar cables!
- Para la instalación, observar las advertencias de instalación en inglés: Plano 65954-754-16-A4 (ver en las págs. 6-8).
- La instalación del aparato en la zona 2 y 22 ha de ser realizada por un especialista en el ramo. La conexión a la red ha de ser realizada de acuerdo con las normativas correspondientes del país respectivo.
  En caso necesario, comunicarse con el proveedor o servicio técnico Sartorius.
  Al realizarse una instalación incorrecta, caducan los derechos de garantía.
- Para evitar las cargas electrostáticas, poner a tierra todos los componentes metálicos.
- Hacer controlar –en intervalos razonables– el equipo, respecto a su funcionamiento correcto y seguridad, por un especialista en el ramo.

- Si a Ud. le parece que un funcionamiento exento de peligro ya no se garantiza, separe el aparato de la tensión de red y asegúrelo contra el uso ulterior (p. ej. al presentarse algún daño). Observar las normativas sobre la protección contra accidentes, informar correspondientemente a los operadores de aparatos.
- Todos los trabajos de mantenimiento, limpieza y reparaciones en el aparato han de realizarse básicamente encontrándose éste separado de la tensión de red.

- Tratar los aparatos de acuerdo al grado de protección IP respectivo. Observar el grado de protección IP durante la limpieza de los aparatos.
- Al utilizar cables de otros fabricantes, tener en cuenta las asignaciones de pines. Por lo tanto, antes de realizar conexiones en los aparatos Sartorius, controlar los conductores del cable de acuerdo con el diagrama de conexión y separar los conductores asignados que no concuerden. La utilización de cables no suministrados por Sartorius es responsabilidad del usuario.

Condiciones de instalación:
Antes de la puesta en marcha, asegurarse que el cable de red esté conectado correctamente a la red. Todos los aparatos con cable de unión eléctrica a la masa (no contenido en el suministro) han de ser puestos a tierra mediante los bornes de conexión equipotencial de los aparatos o agujeros para la conexión equipotencial.
La sección de cable está supeditada a las normativas nacionales respectivas. La instalación tiene que realizarla un especialista cualificado, de acuerdo con las prescripciones y reglas de la técnica.

Han de utilizarse sólo cables y longitudes de cables autorizados por Sartorius, que consideran las limitaciones de longitudes de cables en relación con los valores de capacitancia, inductancia y comportamiento de compatibilidad electromagnética.
Poner en marcha el equipo recién después de asegurarse que en la instalación no se trata de un área potencialmente explosiva.
Si durante la puesta en marcha el aparato presenta desviaciones, a causa del transporte (p. ej. no se activa la lectura), separar el equipo de la tensión de red e informar al servicio técnico.

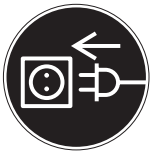
Antes de conectar y separar líneas conductoras de datos y líneas de control es indispensable separar el aparato de la alimentación de tensión.
Cualquiera intervención en el aparato (excepto la que realicen los técnicos autorizados por Sartorius) significa la pérdida de la conformidad Ex para la zona 2 y 22, así como también de todos los derechos de garantía.

Si el aparato se utiliza fuera de la República Federal de Alemania en áreas potencialmente explosivas de la zona 2 o 22, han de respetarse las leyes y normativas nacionales respectivas. Consultar al proveedor o servicio técnico Sartorius respecto a las directivas vigentes en el país.

Puesta en marcha

En caso dado, conectar la plataforma de pesaje (excepto en básculas completas CAW.S..):

○ Ver en Instrucciones de funcionamiento del visor correspondiente.

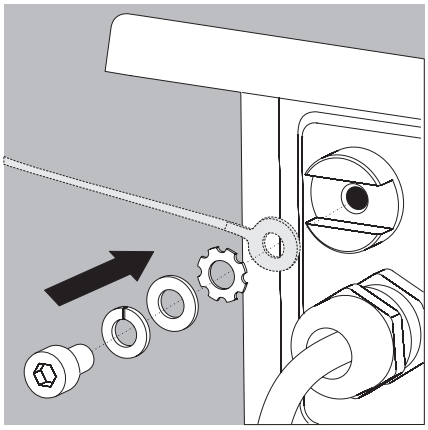


Conectar a la red:

○ Ver en Instrucciones de funcionamiento del visor Combics correspondiente.

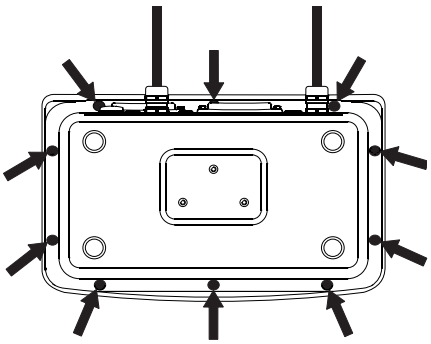
○ Momento de torsión mín. del atornillamiento del cable para la conexión a la red: 3 Nm

○ Momento de torsión mín. para otros atornillamientos de cable: 5 Nm



Realizar la conexión equipotencial en visor CAIS y básculas completas CAW.S.. (puesta a tierra):

● Conectar aparato con un cable de unión eléctrica a la masa (no contenido en el suministro) en la barra equipotencial.

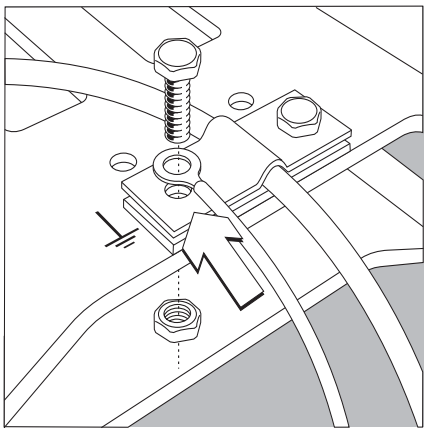


● **En caso dado, conectar visor Combics con seguro contra emanaciones de vapor:**
– utilizar llave dinamométrica
– momento de torsión para los 10 tornillos: 1 Nm

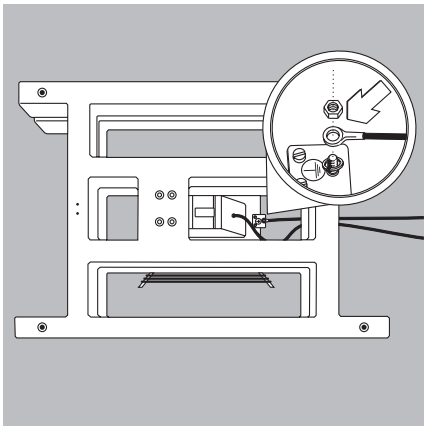
● Realizar el montaje, de manera que se garantice el grado de protección IP67/IP69K. Para mayores informaciones, consultar al servicio técnico Sartorius.

Realizar conexión equipotencial en plataformas de pesaje CAAPS... y CAAPP... (puesta a tierra):

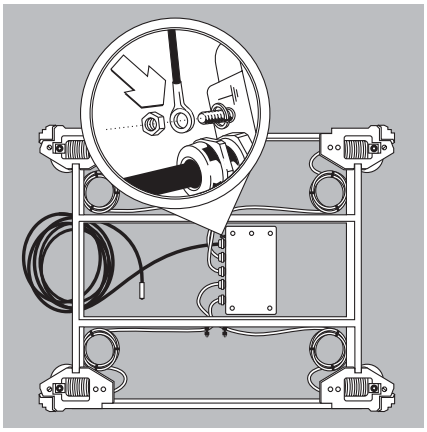
- Para evitar cargas electrostáticas, poner a tierra componentes metálicos de la plataforma de pesaje. Conectar el aparato con un cable de unión eléctrica a la masa (no contenido en el suministro) en la barra equipotencial central.
- Apretar tornillos y tuercas



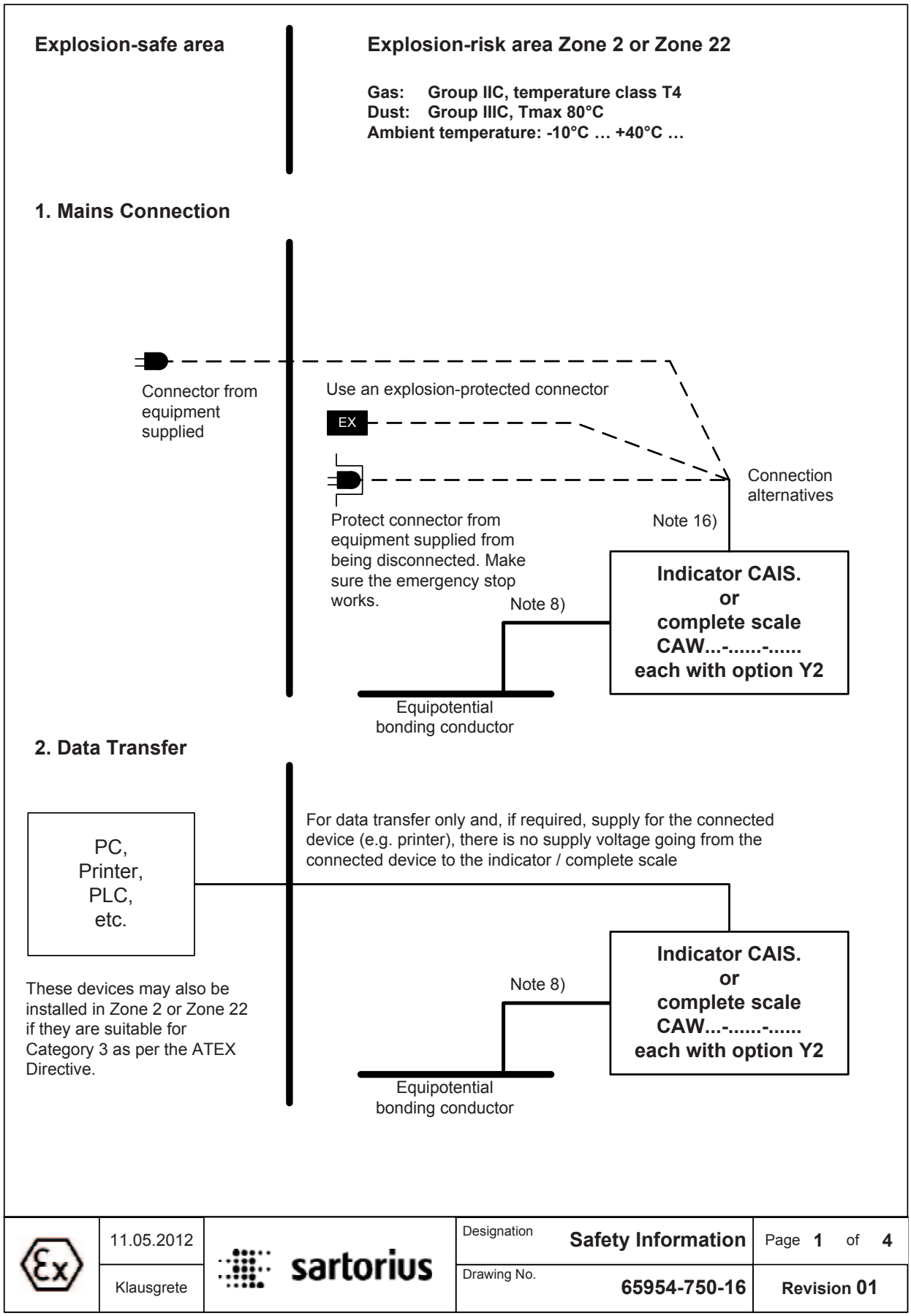
Plataformas de pesaje CAAPS1.. y CAAPP1..: Dimensión hasta 500 × 400 mm



Plataformas de pesaje CAAPS1.. y CAAPP1..: Dimensión desde 650 × 500 mm



Plataformas de pesaje CAAPS4.. y CAAPP4..:


Explosion-safe area
Explosion-risk area Zone 2 or Zone 22
Gas: Group IIC, temperature class T4
Dust: Group IIIC, Tmax 80°C
Ambient temperature: -10°C … +40°C …
1. Mains Connection
Connector from equipment supplied
Use an explosion-protected connector
EX
Connection alternatives
Protect connector from equipment supplied from being disconnected. Make sure the emergency stop works.
Note 16)
Note 8)
Indicator CAIS. or complete scale CAW...-.....-..... each with option Y2
Equipotential bonding conductor
2. Data Transfer
PC, Printer, PLC, etc.
For data transfer only and, if required, supply for the connected device (e.g. printer), there is no supply voltage going from the connected device to the indicator / complete scale
These devices may also be installed in Zone 2 or Zone 22 if they are suitable for Category 3 as per the ATEX Directive.
Note 8)
Indicator CAIS. or complete scale CAW...-.....-..... each with option Y2
Equipotential bonding conductor

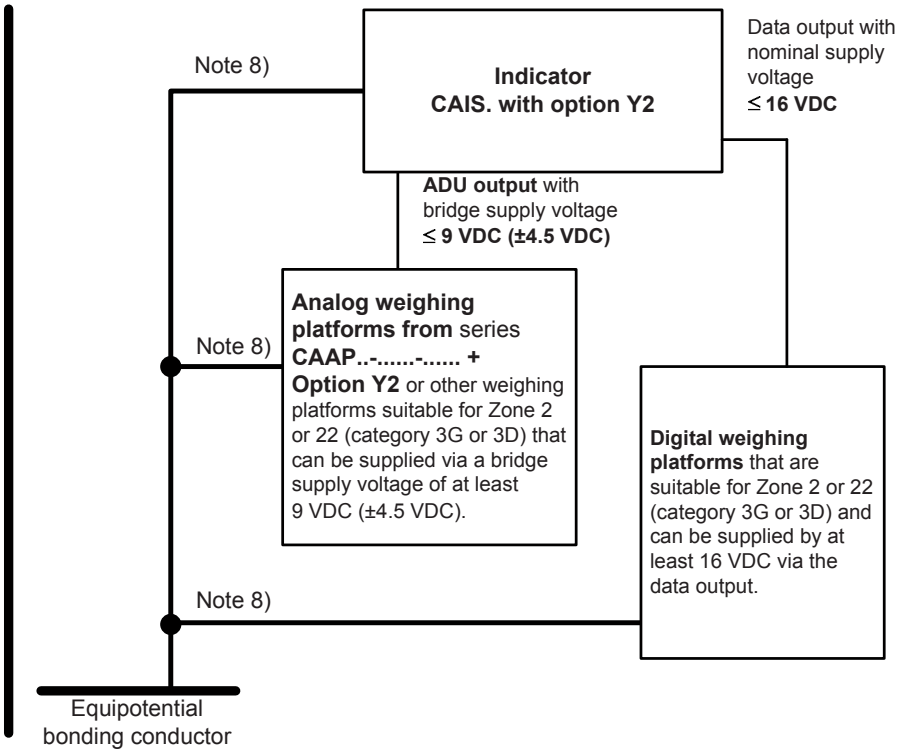
	11.05.2012	sartorius	Designation **Safety Information**	Page **1** of **4**
	Klausgrete		Drawing No. **65954-750-16**	**Revision 01**

Explosion-safe area

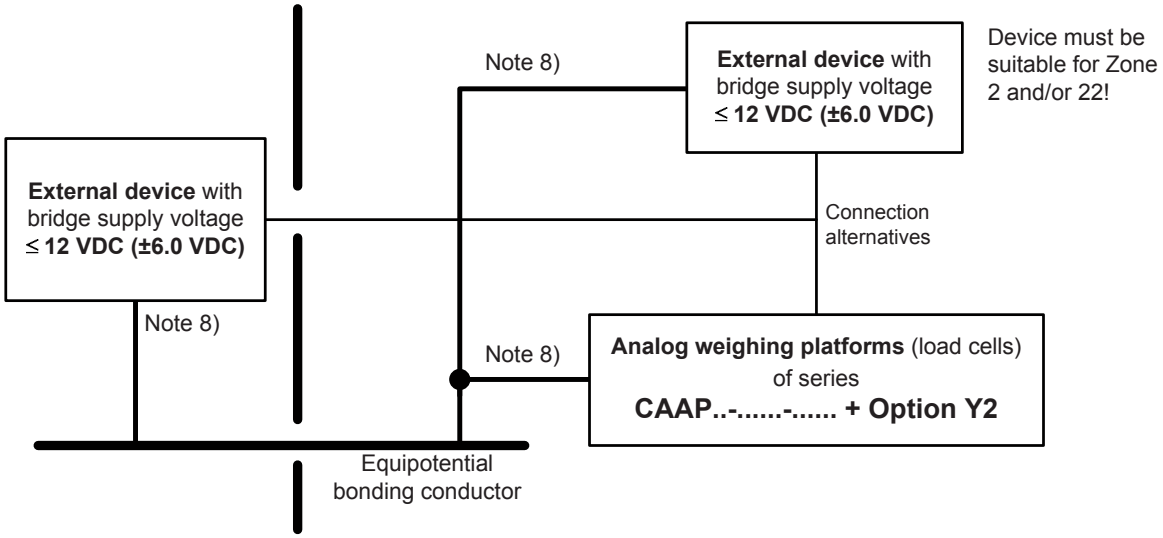
Explosion-risk area Zone 2 or Zone 22

Gas: Group IIC, temperature class T4
Dust: Group IIIC, Tmax 80°C
Ambient temperature: -10°C … +40°C

3. Connecting Weighing Platforms


Note 8)
Indicator
CAIS. with option Y2
Data output with nominal supply voltage
≤ 16 VDC
ADU output with bridge supply voltage
≤ 9 VDC (±4.5 VDC)
Note 8)
Analog weighing platforms from series CAAP..-.....-..... + Option Y2 or other weighing platforms suitable for Zone 2 or 22 (category 3G or 3D) that can be supplied via a bridge supply voltage of at least 9 VDC (±4.5 VDC).
Digital weighing platforms that are suitable for Zone 2 or 22 (category 3G or 3D) and can be supplied by at least 16 VDC via the data output.
Note 8)
Equipotential bonding conductor

4. Connecting External Devices


Note 8)
External device with bridge supply voltage
≤ 12 VDC (±6.0 VDC)
Device must be suitable for Zone 2 and/or 22!
External device with bridge supply voltage
≤ 12 VDC (±6.0 VDC)
Connection alternatives
Note 8)
Note 8)
Analog weighing platforms (load cells) of series
CAAP..-.....-..... + Option Y2
Equipotential bonding conductor

	11.05.2012	sartorius	Designation **Safety Information**	Page **2** of **4**
	Klausgrete		Drawing No. **65954-750-16**	**Revision 01**

These safety instructions apply to installation, use, maintenance and repair

1. The device (CAIS. indicator, CAAP weighing platform..-……-……, CAW complete scale…-……-…...) is suitable for use in potentially explosive atmospheres of **Zone 2** (Group IIC, temperature class T4 or T6 for weighing platforms) and **Zone 22** (Group IIIC; surface temperature 80°C) according to EU Directive 94/9/EC and applicable harmonized European standards. This does not guarantee compliance with other properties and requirements.
2. The device may only be used indoors.
3. Do not use it as a portable instrument.
4. Installation, operation, maintenance and repairs should only be performed by an authorized specialist, in accordance with applicable laws, rules and regulations, ordinances and standards. Particular attention should be paid to Standard EN 60079-14 within the scope of validity of EU Directive 94/9/EC for the installation. Installation, maintenance, cleaning and repair work may only take place with all power disconnected from the device and any connected peripheral devices.
5. It is essential that recommendations on the installation, operation, maintenance and repair contained in the operating instructions supplied are complied with for all equipment (including connected devices). The temperature ranges of connected devices must also be taken into account.
6. The device should only be used in a temperature range of **-10°C … +40°C,** do not expose it to unacceptable sources of heat or cold, direct sunlight, UV radiation, shocks or vibrations, and the installation should ensure that heat can be properly dissipated and external heat sources are kept at a sufficient distance.
7. Tighten the cable entry glands using a torque of 5 Nm. The cable gland for the power cord should be tightened with a torque of only 3 Nm. Install the external connecting cables firmly to avoid damage and strain. The cable connections inside the explosion-risk area must be secured against loosening.
8. All metal parts must be electrically connected to the same equipotential bonding conductor (PA) so that any electrostatic charges can be conducted away from the equipment. For this purpose, the equipment operator is obligated to connect a lead with a gauge of at least 4 mm² (cross section) to the equipotential bonding terminal (indicated by the ground symbol) located on the housing. A suitable ring terminal must be attached to the end of the cable. The cable must be laid so that the ground connector cannot come loose. The connection to the equipotential bonding conductor should be checked to see if it is of low resistance at the time of installation and at regular intervals. The indicator and weighing platform must each be connected individually to the equipotential bonding conductor if no metal connection (e.g. support arm) is used between them. Do not use the shield of the connection cable for the equipotential bonding conductor.
9. Before opening devices, switch off the supply voltage, or make sure that the area is not potentially explosive. Do not connect or disconnect any live cables inside an explosion-risk area.
10. When closing, make sure the cover screws are tightly secured.
11. The device should only be operated for the first time when it is certain that the area is not potentially explosive.
12. Data lines to connected devices and the connection cable to the weighing platform should be secured against accidental disconnection and may only be connected and disconnected when the power supply is turned off. Block unused outlets to guarantee the IP 65 level of protection. Keep any transitory voltage phenomenon away from the device.
13. Data cables are for data transfer only and may not supply any power from the connected device to the indicator / complete scale. However, one digital weighing platform suitable for use in Zone 2 or 22 connected to the data output can be supplied via direct voltage if it can be supplied by direct voltage of at least 16 VDC via the data output.

14. During installation, take suitable steps to prevent stray electrical interference (e.g. due to magnetic fields). Keep any voltage transients away from the device.
15. The indicator (indicator of the complete scale) should be installed so that there is only a low risk of mechanical danger to the IP protection. The IP protection rating of the device is IP6x according to EN 60529 / IEC 60529. The device is designed for clean environments and must be handled carefully according to the IP protection rating.
16. The power connection must be made in accordance with the regulations applicable in the country of operation. A correct power connection must be ensured. The power supply cable should be protected against damage and properly connected to the power supply (**100 - 240 VAC, ± 10%**, 50-60Hz) or **24 VDC (± 10%)** for Option L8**.** The indicator and/or complete scale is approved for circuits up to 1500 A. Only use the power supply connection cable in the hazardous area with a suitable and approved explosion-protected plug. Alternatively: Protect connector from being disconnected or attach the power supply connection cable directly. Be sure to provide a suitable emergency shut-off switch.
17. Avoid generating static electricity. Only use a damp cloth to clean the device. This is especially true when using a dust cover. The equipment operator assumes responsibility for preventing any risks caused by electrostatic charging.
18. If cables are connected subsequently, make sure that the connections are not corroded. The grounding conductor of a mains connection cable must have the same cross section as the current-carrying wires (N and L).
19. All external cables (even cables between load cells / weigh cells and connection box / junction box) are only suitable for fixed placement and must be laid fixed. Otherwise, use screwed connections designed according to EN60079-0 and rounded at an angle of 75º (minimum) and a radius at least equal to one-quarter of the diameter of the cables, but without exceeding 3 mm.
20. Cables from third-party manufacturers (subject to the user's responsibility) must be tested for suitability according to Appendix A EN 60079-0. Pay attention to the pin assignment. Pay attention to the wiring diagram. Remove unneeded connections.
21. Unused openings must be sealed using suitable cover caps (dummy plugs) to ensure their IP protection rating. Do not remove while it is carrying current.
22. When using external devices in Zone 2 hazardous areas, pay attention to the gas group and temperature class. The outputs must include the Ex nA electrical circuits. Pay attention to the maximum surface temperature and group for Zone 22.
23. Chemicals that can attack housing gaskets and cable sheathings must be kept away from the device. These include oil, grease, benzine, acetone, and ozone. If you are uncertain, contact the manufacturer.
24. The installation must be inspected for correct function and safety by a trained and qualified person at appropriate intervals.
25. If the installation does not operate properly, disconnect it from the supply voltage immediately and secure it against further use.
26. In the event of repair, use only original spare parts supplied by the manufacturer.
27. Any modifications to the instrument (except by persons authorized by Sartorius) cause loss of conformity for use in Zone 2 and Zone 22 explosion-risk areas and invalidate all guarantee claims. Similarly, the device may only be opened by qualified and authorized personnel.
28. Modifications (also those by Sartorius personnel) are subject to written approval.
29. These instructions are given in addition to those in the instruction manuals and do not release the operator from his responsibilities for the installation, operation and inspection of the equipment in compliance with any applicable regulations in the country of use.

Ex	11.05.2012	sartorius	Designation **Safety Information**	Page **4** of **4**
	Klausgrete		Drawing No. **65954-750-16**	**Revision 01**

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CE

EG-Konformitätserklärung
EC Declaration of Conformity

Sartorius Weighing Technology GmbH
Weender Landstrasse 94 - 108
D-37075 Goettingen, Germany

erklärt in alleiniger Verantwortung, dass das Betriebsmittel
declares under own responsibility that the equipment

Geräteart: *Device type:*	**Wägeplattform** *Weighing platform*
Baureihe / *Type series:*	CAAP..-.....-.... mit / with Option Y2

in der von uns in Verkehr gebrachten Ausführung mit den grundlegenden Anforderungen der folgenden Europäischen Richtlinien übereinstimmt:
in the form as delivered complies with the basic requirements of the following European Directives:

Richtlinie 2004/108/EG *Directive 2004/108/EC*	Elektromagnetische Verträglichkeit *Electromagnetic compatibility*
Richtlinie 94/9/EG *Directive 94/9/EC*	Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen *Equipment and protective systems intended for use in potentially explosive atmospheres*

Das Gerät erfüllt die anwendbaren Anforderungen der in Anhang 1 aufgeführten harmonisierten Europäischen Normen. Zu Angaben zur Richtlinie 94/9/EG siehe Anhang 2.
The apparatus meets the applicable requirements of the harmonized European Standards listed in Annex 1. For specifications regarding Directive 94/9/EC see Annex 2.

Jahr der Anbringung der CE-Kennzeichnung / *Year of attachment of CE marking:* **12**

Sartorius Weighing Technology GmbH
Goettingen, 2012-05-14

i. V. | i. V.

Dr. Reinhard Baumfalk
Vice President R&D

Dr. Dieter Klausgrete
Head of International Certification Management

Diese Erklärung bescheinigt die Übereinstimmung mit den genannten EG-Richtlinien, ist jedoch keine Zusicherung von Eigenschaften. Bei einer mit uns nicht abgestimmten Änderung des Produktes verliert diese Erklärung ihre Gültigkeit. Die Sicherheitshinweise der zugehörigen Produktdokumentation sind zu beachten.
This declaration certifies conformity with the above mentioned EC Directives, but does not guarantee product attributes. Unauthorised product modifications make this declaration invalid. The safety information in the associated product documentation must be observed.

SWT12CE020 | 65954-750-58 | SOP-3.RD-045-fo2

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CE

EG-Konformitätserklärung
EC Declaration of Conformity

Sartorius Weighing Technology GmbH
Weender Landstrasse 94 - 108
D-37075 Goettingen, Germany

erklärt in alleiniger Verantwortung, dass das Betriebsmittel
declares under own responsibility that the equipment

Geräteart: *Device type:*	**Indicator** *Indicator*
Baureihe / *Type series:*	CAIS1, CAIS2, CAIS3 mit / with Option Y2

in der von uns in Verkehr gebrachten Ausführung mit den grundlegenden Anforderungen der folgenden Europäischen Richtlinien übereinstimmt:
in the form as delivered complies with the basic requirements of the following European Directives:

Richtlinie 2004/108/EG *Directive 2004/108/EC*	Elektromagnetische Verträglichkeit *Electromagnetic compatibility*
Richtlinie 2006/95/EG *Directive 2006/95/EC*	Elektrische Betriebsmittel zur Verwendung innerhalb bestimmter Spannungsgrenzen *Electrical equipment designed for use within certain voltage limits*
Richtlinie 94/9/EG *Directive 94/9/EC*	Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen *Equipment and protective systems intended for use in potentially explosive atmospheres*

Das Gerät erfüllt die anwendbaren Anforderungen der in Anhang 1 aufgeführten harmonisierten Europäischen Normen. Zu Angaben zur Richtlinie 94/9/EG siehe Anhang 2.
The apparatus meets the applicable requirements of the harmonized European Standards listed in Annex 1. For specifications regarding Directive 94/9/EC see Annex 2.

Jahr der Anbringung der CE-Kennzeichnung / *Year of attachment of CE marking:* **12**

Sartorius Weighing Technology GmbH
Goettingen, 2012-05-14

i.V. Dr. Reinhard Baumfalk
Vice President R&D

i.V. Dr. Dieter Klausgrete
Head of International Certification Management

Diese Erklärung bescheinigt die Übereinstimmung mit den genannten EG-Richtlinien, ist jedoch keine Zusicherung von Eigenschaften. Bei einer mit uns nicht abgestimmten Änderung des Produktes verliert diese Erklärung ihre Gültigkeit. Die Sicherheitshinweise der zugehörigen Produktdokumentation sind zu beachten.
This declaration certifies conformity with the above mentioned EC Directives, but does not guarantee product attributes. Unauthorised product modifications make this declaration invalid. The safety information in the associated product documentation must be observed.

SWT12CE021 65954-750-58 SOP-3.RD-045-fo2

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Herstellerbescheinigung
Manufacturer's Certificate

Sartorius Weighing Technology GmbH
Weender Landstrasse 94 - 108
D-37075 Goettingen, Germany

bescheinigt in alleiniger Verantwortung, dass das Produkt
certifies under our sole responsibility that the product

Wägeplattform / *Weighing platform*	CAAP..-.....-....	mit / with Option Y2
Indikator / *indicator*	CAIS1, CAIS2, CAIS3	mit / with Option Y2
Komplettwaage / *complete scale*	CAW...-.....-.....	mit / with Option Y2

auf das sich diese Bescheinigung bezieht, in der von uns in Verkehr gebrachten Ausführung mit der/den folgenden Norm(en) oder normativen Dokument(en) übereinstimmt (siehe Seite 2) gemäß den Bestimmungen der „Richtlinie 94/9/EG des Europäischen Parlaments und des Rates vom 23. März 1994 zur Angleichung der Rechtsvorschriften der Mitgliedstaaten für Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen". Das Produkt wird wie folgt gekennzeichnet:

to which this certification relates in the form as delivered complies with the following standard(s) or other normative document(s) (see page 2) pursuant to the provisions of the "Directive 94/9/EC of the European Parliament and the Council of 23 March 1994 on the approximation of the laws of the Member States concerning equipment and protective systems intended for use in potentially explosive atmospheres". This product is labelled as follows:

II 3G Ex nA IIC T6 Gc (Wägeplattform / *Weighing platform)*
II 3G Ex nA ic IIC T4 Gc (Indikator und Komplettwaage / *Indicator and complete scale)*
II 3D Ex tc IIIC T80°C Dc
SWT12ATEX006X

Sartorius Weighing Technology GmbH
Goettingen, 2012-05-14

i.V. P. Baumfalk
Dr. Reinhard Baumfalk
Vice President R&D

i.V. Klausgrete
Dr. Dieter Klausgrete
Head of International Certification Management

Diese Erklärung bescheinigt die Übereinstimmung mit den genannten EG-Richtlinien, ist jedoch keine Zusicherung von Eigenschaften. Bei einer mit uns nicht abgestimmten Änderung des Produktes verliert diese Erklärung ihre Gültigkeit. Die Sicherheitshinweise der zugehörigen Produktdokumentation sind zu beachten.

This declaration certifies conformity with the above mentioned EC Directives, but does not guarantee product attributes. Unauthorised product modifications make this declaration invalid. The safety information in the associated product documentation must be observed.

SWT12ATEX006 1 / 2 SOP-3.RD-045-fo4

Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt durch Übereinstimmung mit:

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0: 2009
Explosionsfähige Atmosphäre – Teil 0: Geräte - Allgemeine Anforderungen
Explosive atmospheres - Part 0: Equipment - General requirements

EN 60079-11: 2007
Explosionsfähige Atmosphäre - Teil 11: Geräteschutz durch Eigensicherheit „i"
Explosive atmospheres – Part 11: Equipment protection by intrinsic safety „i"

EN 60079-15: 2005
Elektrische Betriebsmittel für gasexplosionsgefährdete Bereiche – Teil 15: Konstruktion, Prüfung und Kennzeichnung von elektrischen Betriebsmitteln der Zündschutzart „n"
Electrical apparatus for explosive gas atmospheres – Part 15: Construction, test and marking of type of protection "n" electrical apparatus

EN 60079-31:2009
Explosionsfähige Atmosphäre – Teil 31: Geräte - Staubexplosionsschutz durch Gehäuse "t"
Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"

* * * * * *

Technische Daten / *Specifications:*

Umgebungstemperatur / *Ambient temperature range:* **-10°C ... +40°C**

IP-Schutz / *IP protection:* **IP6x**

Versorgungsspannung / *Supply voltage*

Wägeplattform / *weighing platform:*	≤12Vdc (±6Vdc)
Indikator, Komplettwaage / *indicator, complete scale:*	Standard: 100-240 Vac, 50/60 Hz, 23VA (max), Um = 250V Option L8: 24 Vdc, 12 W (max), Um = 30 V

Versorgungsspannung für analoge Wägeplattformen durch den Indikator: Uout = ≤9Vdc (±4,5Vdc)
Supply voltage for analogue weighing platforms from the indicator:

Versorgungsspannung für digitale Wägeplattformen durch den Indikator: Uout = ≤16Vdc
Supply voltage for digital weighing platforms from the indicator:

* * * * * *

Besondere Bedingungen für den sicheren Gebrauch / *Special conditions for safe use:*

Sicherheitshinweise **65954-750-16**
Safety instructions **65954-751-*16***

* * * * * *

Prüfbericht / *Test Report*

SWT.12.ATEX.006 (Sartorius Weighing Technology GmbH, Goettingen, Germany)

* * * * * *

SWT12ATEX006 65954-750-58 2 / 2 SOP-3.RD-045-fo4

sartorius

EG-Konformitätserklärung
EC Declaration of Conformity

Sartorius Weighing Technology GmbH
Weender Landstrasse 94 - 108
D-37075 Goettingen, Germany

erklärt in alleiniger Verantwortung, dass das Betriebsmittel
declares under own responsibility that the equipment

Geräteart: *Device type:*	**Komplettwaage** *Complete scale*
Baureihe / *Type series:*	**CAW...-.....-..... mit / with Option Y2**

in der von uns in Verkehr gebrachten Ausführung mit den grundlegenden Anforderungen der folgenden Europäischen Richtlinien übereinstimmt:
in the form as delivered complies with the basic requirements of the following European Directives:

Richtlinie 2004/108/EG *Directive 2004/108/EC*	Elektromagnetische Verträglichkeit *Electromagnetic compatibility*
Richtlinie 2006/95/EG *Directive 2006/95/EC*	Elektrische Betriebsmittel zur Verwendung innerhalb bestimmter Spannungsgrenzen *Electrical equipment designed for use within certain voltage limits*
Richtlinie 94/9/EG *Directive 94/9/EC*	Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen *Equipment and protective systems intended for use in potentially explosive atmospheres*

Das Gerät erfüllt die anwendbaren Anforderungen der in Anhang 1 aufgeführten harmonisierten Europäischen Normen. Zu Angaben zur Richtlinie 94/9/EG siehe Anhang 2.
The apparatus meets the applicable requirements of the harmonized European Standards listed in Annex 1. For specifications regarding Directive 94/9/EC see Annex 2.

Jahr der Anbringung der CE-Kennzeichnung / *Year of attachment of CE marking:* **12**

Sartorius Weighing Technology GmbH
Goettingen, 2012-05-14

i.V. Dr. Reinhard Baumfalk
Vice President R&D

i.V. Dr. Dieter Klausgrete
Head of International Certification Management

Diese Erklärung bescheinigt die Übereinstimmung mit den genannten EG-Richtlinien, ist jedoch keine Zusicherung von Eigenschaften. Bei einer mit uns nicht abgestimmten Änderung des Produktes verliert diese Erklärung ihre Gültigkeit. Die Sicherheitshinweise der zugehörigen Produktdokumentation sind zu beachten.
This declaration certifies conformity with the above mentioned EC Directives, but does not guarantee product attributes. Unauthorised product modifications make this declaration invalid. The safety information in the associated product documentation must be observed.

SWT12CE022 65954-750-58 SOP-3.RD-045-fo2

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